UNDER THE SUPERINTENDENCE OF THE SOCIETY FOR THE DIFFUSION OF USEFUL KNOWLEDGE.

THE QUARTERLY JOURNAL OF EDUCATION.

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THOMAS COATES, *Secretary*, No. 59, Lincoln's-Inn-Fields.

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The Committee of the Society for the Diffusion of Useful Knowledge are desirous of explaining the degree of superintendence, which they think that they ought to exercise with respect to this publication.

It will of course be their duty not to sanction any thing inconsistent with the general principles of the Society. Subject, however, to this general superintendence, they feel that the objects of the Society will be better forwarded by placing before the readers of this work the sentiments of able and liberal men, and thus enabling them to form their own conclusions, as well from the difference as from the agreement of the writers, than by proposing to them, as if from authority, any fixed rule of judgment, or one uniform set of opinions. It would also be inconsistent with the respect which the Committee entertain for the persons engaged in the preparation of these papers, were they to require them strictly to submit their own opinions to any rule that should be prescribed to them. If, therefore, the general effect of a paper be favourable to the objects of the Society, the Committee will feel themselves at liberty to direct its publication: the details must be the author's alone, and the opinions expressed on each particular question must be considered as his, and not those of the Committee. As they do not profess to make themselves answerable for the details of each particular essay, they cannot, of course, undertake for the exact conformity of the representations which different authors may make of the same facts; nor, indeed, do they, for the reasons already given, feel that such conformity is requisite.

By Order of the Committee,

Thomas Coates, *Secretary*.

Gray's Inn,
28*th Dec*. 1830.

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By Order of the Committee,

THOMAS COATES, *Secretary.*

59, *Lincoln's Inn Fields*,
March 28, 1831.



THE

QUARTERLY JOURNAL OF EDUCATION.

INTRODUCTION.

The Committee of the Society for the Diffusion of Useful Knowledge have hitherto not made known their object in publishing a Journal of Education any further than by a general statement of its nature and design: but the appearance of the first number presents a suitable occasion for explaining more clearly their views, and for pointing out the important advantages which education may derive from being made the subject of periodical discussion.

While we have in Great Britain various means of diffusing the knowledge of all the events of political life, and of every useful discovery in art and science, there are none that are efficient for recording the great and interesting events of Education, and for communicating the improvements which are made from time to time in the modes of acquiring knowledge.

The education of the British islands has no bond of union; it is split into factions, and parties, and sects, each ignorant of what the rest are doing, and all deprived of the benefits which they might derive from mutual acquaintance. Education may improve in some places; in others it may be remaining stationary, or gradually growing worse; while, except to a few, whom chance may have led to examine establishments for education, these important facts in their history are unknown and unrecorded. Is it necessary to allege a stronger proof of this than the general ignorance which prevails about the constitution and discipline of the two ancient Universities of England, even in those classes which have free and open access to these seats of learning? How few of those who have not been educated there, know what branches of knowledge are taught or neglected; or what are the peculiar merits and defects in the systems pursued at Oxford and Cambridge, to say nothing of the Scotch Universities, hardly allowed to bear the name in this country: and how few even of the gra-

duates of an English University can form any comparison between that system under which they have been trained, and the education of such places as Bonn or Berlin.

Now, if we can devise any means for giving a greater unity to education in these islands; if we can only make all persons engaged in instruction better acquainted with one another; and if we can diffuse a fair and unbiassed criticism on establishments for education, and on the systems and the books which constitute their real life and existence—we are doing a service, not only to our country, but to the whole world. *They* are the true friends to social order and rational freedom; *they* deserve an honourable mention and an honest fame, who labour to diffuse useful knowledge among all men, offering to each as large a share as his time, his circumstances, and his capacity will allow him to acquire.

A Journal of Education will comprehend a greater variety of important subjects, and more topics of general interest, than those imagine who have not attempted an enumeration of them.

Every civilized country abounds in establishments for the instruction of the various classes of the community; some founded by a wise and generous state policy; others by the endowments of friends to education; and a large number owe their origin to individual speculation for profit, sometimes combined with a desire to improve education.

All these descriptions of places of instruction, and every single establishment among them, have a constitution, a history, and an influence on society, only not properly estimated, because we have in general no ready means of knowing and making known their transactions. But it is from such places that those proceed, whose acts and opinions must determine the character of our social life; for *they* are the *educated*, and be the education good or bad, it *will* have its influence.

To describe then the origin, constitution, and actual condition of places of education; to examine their systems of instruction, and to record the important events from time to time occurring in them, is the object of one part of this Journal. Though the institutions of our own country fairly demand the greater part of our attention, it is of almost equal importance to show what is going on in foreign parts, and to introduce to early notice the improvements of Germany, France, and other continental nations. It will often be found necessary to give an historical sketch, beginning at the remotest well known era, of those important University systems or great schools, which have been so closely connected with the history of national education. The University of Paris deserves such a notice, which would furnish matter for the consideration of

thinking readers, and would have also the advantage of some attraction for those who read only for amusement. In treating of those venerable and useful institutions, both at home and abroad, while it becomes a sacred duty not to conceal their defects, it will always be our delight to mention even those defects in courteous and respectful terms. A rich mine of curious and useful information, in this department of our plan, is contained in the very voluminous Reports of the Commissioners of Public Charities in England, and some interesting matter is also to be found in the Reports of the Irish Education Commissions. From these stores we shall occasionally draw such historical and other matter as may prove at once instructive and agreeable to those who interest themselves in the history of endowed schools.

In obtaining information on establishments for education, it will always be the object of the Committee to procure the assistance of gentlemen who are personally acquainted with them, and on whose character and discretion they can rely. Such contributors, it may be said, when they are professionally connected with public schools or universities, will be inclined to set off their merits to most advantage, and to palliate their faults. But there is an obvious advantage in making choice of a person familiar with the place described—he knows the facts, and he is, therefore, a safer guide than one who may be liable, from ignorance of them, to draw a false picture, or, from prejudice, to see them in a false light. And if, besides knowing the facts, our contributor is a person in whom we have full confidence, we have as much security as is practicable against misstatement or error. It should be added, too, that the Committee contains, among so great a number of members, many whose judgment and knowledge will form an additional check on any wilful or accidental perversion of facts. This explanation appears to be necessary, to obviate any misconception about the precise object of this part of the Journal, and the way of accomplishing it.

For the purpose of explaining more distinctly the kind of information which the Society wish to collect, a Schedule, containing heads of inquiry, is subjoined to these introductory remarks.

Another, and about an equal portion of the Journal, will be devoted to the examination of books used in practical instruction. If we consider how important it is, both for teacher and learner, to have some means of judging of the quality of those instruments which they must daily employ, it will be readily allowed that a fair and complete review of a book is one of the most effectual ways of improving Education. That it may

be difficult to secure a constant supply of well written and impartial examinations of books is no real objection to making the attempt; and the Committee can at least promise, that they will endeavour to conduct this part of the Journal in such a way as to make it a safe guide to those who consult it. They will, without reserve, point out errors, of whatever kind they may be, in all those works which they may think it useful to examine; but, on no occasion, shall any contributor be allowed to indulge in personal abuse, or to wander into the vague generalities of praise and censure, so frequently substituted for real criticism. In some cases a simple and easy course will render harsh censure unnecessary: when a work is of no value, and has no great circulation, no notice will be taken of it.

One more remark is necessary to prevent misconception of the Society's views. The contributors to the Journal are necessarily selected from persons of various classes and professions, whose opinions will unavoidably differ on many matters of detail, and also occasionally on some points involving general principles. That the Committee should require all such contributors to agree, or that they themselves should undertake to adapt all the papers for the Journal to one standard of opinion, is obviously impossible; and, it may be added, not at all consistent with the nature of the Society's Constitution. Within certain limits, the Committee think it useful to allow contributors a free expression of their views, but they do not, therefore, consider themselves responsible for every opinion, nor liable to a charge of inconsistency for allowing their contributors to differ on subjects which are still open for discussion. By giving their sanction to each number of the Journal, they mean to say that the papers which it contains on the *whole* meet with their approbation, and they publish them because they think their *general* tenor calculated to do good. The standing notice on the inside of the cover expresses distinctly the opinion of the Society on this subject.

The short notices at the end of each Number are intended to communicate information on a variety of smaller matters, which could not be introduced anywhere else. They may be partly classed under the head of News, though it should be understood that they will be selected from domestic and foreign journals, rather with a view to their usefulness than their mere novelty.

As the Journal of Education is a very comprehensive title, it may be asked if it is intended to give a preference to any particular branch of the subject. The present Number will in

part answer the question, but not entirely; for, on future occasions, subjects will be discussed, and books reviewed, belonging to classes different from any that the present Number contains.

But there is no education of any country or class in society which is not included within the limits of the scheme; and there is no kind of book, either used in the most elementary instruction, or in the higher departments, which the Committee may not occasionally notice. Works on religious subjects are of course excepted, it being well known to all who are acquainted with the constitution of the Society, that they have thought it better to leave this important part of education to the care of those numerous Societies which are established for the promotion of Christian knowledge, and which so ably and conscientiously fulfil their duties. It is the opinion of the Committee that the general education of those classes of the community, who, from their station in society, have the control over that of the poorer classes, is the most important object to which they can direct their attention. They do not intend to neglect either the statistics of the education of the poorer classes, or the books which are used for their instruction, nor any other fact of any kind that concerns so large a part of the population. But the education of that class, on which depends the education of all the rest, demands their especial attention.

In our universities, and schools for the instruction of the richer and the moderately wealthy classes, there is room for much improvement in that which is already taught, and there is an immediate necessity to add to it other kinds of knowledge which are much neglected. It will, therefore, be one of the most important objects of this Journal to improve the higher kind of education by an impartial criticism of such books as are used in public schools and colleges. And, in doing this, it will often be in the power of the Committee to introduce new and useful works to the notice of British teachers, and to recommend additional branches of knowledge by showing what is taught in foreign schools and universities. This is the more necessary, because, for the present, the improvement of school-books and other works used in education, though an important part of the Society's plan, has been unavoidably postponed to other objects less directly connected with general education. Occasionally, too, works of the very highest class in the department of philology, and the various branches of science, will be the subject of criticism: for it is by such works that the opinions of teachers are in many cases formed and controlled; and there is, therefore, as much reason for endeavouring to direct the instructor in the right

way, as there is for giving so much attention to the education of the wealthier classes, with the view of securing the good education of all.

A single example will show the importance of this remark. Mitford's History of Greece, a work of great labour and of some merit, forms the opinions of a very numerous class of teachers on one subject, who, in their turn, give a direction to the opinions of those whom they instruct. Is the history of a people who have transmitted to us so much of the history of the world, such excellent specimens of art, and such simple and correct models of composition—is this history an object worthy of our careful study? We think it is; and we think too that a most vigilant, scrutinizing, and impartial criticism should watch over every undertaking that professes to exhibit the history either of a people like the Greeks, or the social progress of a nation like our own. Yet, nothing can be more certain than that Mitford's learned work is written under the influence of most extravagant opinions and deep-rooted prejudices upon all political subjects; opinions which, as those who once held them are now ready to allow, were, at the least, strengthened by the passing events of the day—and prejudices which, in the present times, have almost everywhere been extirpated.

These few remarks, aided by the sample offered in a first Number, will explain pretty clearly the general, as well as the more particular object of the Society's Journal of Education.

It is well known that in France, Germany, and the United States of North America *, there are Journals of Education, some of which bear a resemblance in their plan to the present Number, while others differ considerably in their detail; but all unite in the main design of improving education, by making it the subject of periodical criticism, and by diffusing the knowledge of all useful facts connected with the important science of instruction.

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* There is also a Journal of Education that has been published for some years in London, under the title of 'The Sunday School Teacher's Magazine and Journal of Education.'

HEADS OF INQUIRY.

The Committee of the Society for the Diffusion of Useful Knowledge, believing that many readers of the Journal in various parts o the world, and particularly in the British dominions, will be both able and willing to furnish valuable information on the statistics of education, suggest the following heads of inquiry, and request that their correspondents will communicate their names and addresses, with some indication of the authorities on which their statements depend.

1. What is the name, population, and extent of the district to which the answers to the following queries apply?

2. What are the means of education in your neighbourhood; viz. Is there any

   a. University?

   b. College or Public School?

   c. Establishment for the special instruction of students in Theology, Medicine, Law, and whatever is strictly professional education?

   d. Free School?

   e. Lancasterian or National School?

   f. Sunday School—or Adult School?

   g. Infant School?

   h. Any Association for the Diffusion of Knowledge; such as, Literary and Philosophical Institution, Mechanics' Institution or School?

   i. School of Arts, &c.?

   j. Society for the Promotion of particular Arts and Sciences, such as Geography, Astronomy, Political Economy, &c.?

Be pleased to specify under each head, whether the particular Institution is incorporated.

Whether it is supported by endowment of individuals, or of any religious sect, and the nature of the endowment.

Or whether by subscription, by the government, or by the fees of the learners; or whether partly by each of those means. What the date of its origin? And how is it governed?

Under the subdivisions, *a*, *b*, *c*, be pleased to specify

Whether the Learned Languages are taught? the Mathematics, and the moral and physical Sciences?

What length of time is employed in the course of Studies?

What examinations are there, what rewards, what punishments?

Number of teachers, number of pupils, rate of increase or diminution of the pupils since the origin of the institution?

Teachers how paid; remuneration fixed or variable, and on what depending? Expense for each pupil, whether paid entirely by him or in part, or paid by a society or foundation?

Text books, maps, &c. used, to be *particularly* specified, and expense of books per annum for each pupil, libraries for the use of teachers or pupils, philosophical apparatus, &c.?

In Lending Libraries for the poorer classes, state what kind of books compose them, how purchased or procured, what kind most read, whether lent gratuitously, or on the payment of a small sum.

Circulation of periodical publications of all kinds within given districts—titles and nature of such publications to be specified.

ON UNIVERSITY EDUCATION.

OXFORD.

THE prevailing ignorance among Englishmen, as to the character and constitution of their Universities, is a fact not a little extraordinary. Let half a dozen of our countrymen, of average intelligence, and respectably educated, but not at a University, be asked by a foreigner to give him an account of these celebrated places of education, and it is probable that no two of their statements will agree, and that not one of them will be exempt from material inaccuracy.

Many, who are neither destitute of curiosity, nor ill informed on other subjects, some of which would seem to be intrinsically of a much less interesting character, are conscious that they know but little about Oxford and Cambridge; in reality, they know still less than they imagine, and have little or no curiosity to know more.

And many, even of those who have been educated at one of the Universities, will yet be found to have a very indistinct, as well as imperfect, notion of their nature and objects. A correct account of the actual condition of one or both of these academical bodies would contain more of real novelty to the greater part of the reading public, more information which they did not previously possess, than most books that are published; and yet, perhaps, an account of the present state of the Chinese empire would be perused with more interest.

One cause, perhaps, of this general indifference may be, that familiar *acquaintance* is usually mistaken for complete *knowledge*. Every one is accustomed to the *names* of Oxford and Cambridge; and few, therefore, are aware how little they really know about the *things*. It is taken for granted that no one can be ignorant of things 'familiar in their mouths as household words.' Add to which, that almost every one among the educated classes either has been at one of the Universities himself, in which case he is ashamed to own even to himself that he has any thing to learn respecting it; or, at least, has relations or neighbours, who have been brought up there, of whom he could so easily make inquiries, that he seldom thinks of doing so. Where no diligent research is called for,—no great discovery to be made,—

it seldom happens that much curiosity is excited; and hence what it is supposed may be known at any time, is commonly not known at all. The remark is become almost proverbial, that those in the neighbourhood of some curious waterfall, ruin, manufactory, or other sight, which attracts numbers from a distance, seldom visit it themselves, because they can go at any time.

There is another circumstance which occasions many even of those who have had a University education, to form an incorrect and imperfect notion on the subject: they have not thought of considering what *ends* are, and what ought to be, proposed in such an establishment. Now it is obvious, that no one can take any clear and comprehensive view of the actual state of a place of education, unless he understand, first, what are the objects to be attained; and, secondly, what are the means employed for carrying the designs into effect: and unless he be also competent to judge both how far the proposed object is a good one, and the means employed for attaining it likely to succeed. Now let any one who is boldly pronouncing on the merits or demerits of the system pursued, for instance, at Oxford, be asked to state his opinion first on the above points, and it is not unlikely that he may be found never to have even placed them distinctly before his mind.

He would find on reflection, that on each of these points many and nice distinctions are called for, which are of the highest practical importance. For instance, it is by no means sufficient, with a view to estimating aright the character of a University, to determine what things are most *essentially important* to be taught: the question still remains, what should be taught by an *endowed* body. As a general rule, it may safely be asserted, that whatever branches of knowledge directly conduce to the professional advancement and success in life of the individual, may safely be left, and had better be left, to the spontaneous exertions of individual learners and teachers. There is no need of endowments for students or for teachers of the most necessary arts of life. In a few cases some extraordinary support, at the outset, may be expedient, to give a turn to the habitual thoughts and pursuits of a people; and a museum, library, laboratory, or other such institution for facilitating the cultivation of some branch of study, may be a fit subject of public expenditure or private munificence: but wherever, as in agriculture, medicine, the mechanical arts, &c., a man's professional success clearly depends on his real or supposed proficiency, the private interest of individuals will induce them, to the best

of their power, to seek for instruction, and to secure by the remuneration offered a competent supply of teachers.

When, therefore, a University is censured for 'teaching nothing that is of any use,' or exhorted to pay an especial attention to *useful* studies, a distinction should be pointed out which is commonly overlooked; *viz.*, between what is useful to each individual with a view to his own immediate support or advancement, and what is useful to society if *pursued as a system.* The latter is the proper object of an endowed institution; the former may be trusted to the spontaneous sharp-sightedness of individuals for their own or their children's success in life.

On this principle, it has been observed, and generally speaking with truth, that those well-meaning persons who have left legacies for the apprenticing of poor boys to useful trades, have, for the most part, (except where such endowments have been bestowed as a prize on superior merit,) thrown their money away. Certain individuals, indeed, are perhaps benefited by being elevated to a situation which they would not otherwise have attained; but as the effectual demand for tailors and shoemakers is not increased by binding poor boys apprentices to those trades, the public is on the whole no gainer by such donations; they only make one person a tailor instead of another; and though the trade is a very necessary one, there is no fear of its being undersupplied as long as the effectual demand for clothes continues the same. 'There are but so many seats in the theatre of life; and he who procures me one of them, does to me indeed a service, but none at all to the assembly.'

But is there then, it may be asked, any branch or kind of education so little likely to be adequately encouraged by the spontaneous exertions of individuals, and at the same time so beneficial to the community, as to be deserving of public support? Adam Smith seems disposed to answer this question in the negative, except as far as regards the lower orders. 'They,' says he, (book v. chap. i. p. 186,) 'have little time to spare for education. Their parents can scarce afford to maintain them even in infancy. As soon as they are able to work, they must apply to some trade by which they can earn their subsistence. That trade too is generally so simple and uniform, as to give little exercise to the understanding; while, at the same time, their labour is both so constant and so severe, that it leaves them little leisure and less inclination to apply to, or even to think of any thing else.

'But though the common people cannot, in any civilized

society, be so well instructed as people of some rank and fortune, the most essential parts of education, however, to read, write, and account, can be acquired at so early a period of life, that the greater part even of those who are to be bred to the lowest occupations, have time to acquire them before they can be employed in those occupations. For a very small expense the public can facilitate, can encourage, and can even impose upon almost the whole body of the people, the necessity of acquiring those most essential parts of education.'

But in respect to the higher classes, he observes that, 'were there no public institutions (book v. chap. i. p. 180,) for education, a gentleman, after going through, with application and abilities, the most complete course of education which the circumstances of the times were supposed to afford, could not come into the world completely ignorant of every *thing which is the common subject of conversation among gentlemen and men of the world.'*

He all along assumes *(for he does not undertake to prove,) that for all above the lowest ranks of society, that education is the best, and is complete, which their own interests, tastes, and feelings would lead them to seek and to find, if left completely to themselves.* His opinion on this point has been ascribed by many to an exclusive attention to that which is the avowed subject of his work, national wealth, and a consequent tendency to estimate the absolute expediency of every system, or measure, solely with a view to profit and loss. But it is not unlikely that he was influenced in a great degree by the then degraded condition of the University of Oxford, of which he was a member; and of which it might be said with too much truth, both in his time and for many years after, that a young man was more likely to be injured than to derive advantage from a residence there.

If it was an error in him, therefore, as doubtless it was, to condemn public institutions of this kind altogether, and to overlook the important advantages to which they may be made subservient, it was at least an error, for which the existing abuse offered some palliation. It is much to be regretted, however, that while edition after edition of his valuable work is presented to the public, a large portion of his readers should be, as is probably the case, left to suppose that the description he gives of Universities generally, is applicable to them at the present day, or at least to the one from which his ideas were chiefly formed; whereas in reality

a writer who should describe the British army as equipped with bows and arrows, would not convey a more incorrect idea.

A writer of Adam Smith's acuteness and sound judgment would hardly have failed to perceive, had he not been blinded by an indignation, certainly not inexcusable, that there is, or at least conceivably may be, a system of education befitting a *gentleman* as such, and tending to qualify him (in Milton's words) 'to perform, justly, skilfully, and magnanimously, all the offices, both private and public, of peace and war:' an education which shall cultivate the understanding and improve the heart; developing the soundest moral principles, exercising the reasoning faculty, refining the taste, and introducing the student to various branches of knowledge, intrinsically the most interesting, but liable to be unduly neglected when education is conducted on mere computations of immediate profit and loss. Nothing is more to be deprecated than the universal pursuit (so strongly advocated by some), in each instance, of a strictly 'professional education;' such as tends to strengthen the barrier which the necessary division of labour always, in some degree, places between man and man; and to confine every one, as far as possible, as it were, to his own workshop, without allowing all 'to walk abroad and recreate themselves' in the pleasant gardens of literature and science. The first and main object of a University should not be professional education in the narrowest sense, viz. that which helps a man to *get on* in his profession, but that which qualifies him to adorn it—to be a better companion, a better citizen, and a better man.

And of what may be called professional education, those parts are surely the most worthy the attention of an endowed public establishment, which private interest would be the most likely to overlook, in consequence of the less close connexion between an individual's qualifications, and his success in life. In this predicament are two of the most important professions (though to one of them only this term is commonly applied), that of a minister of religion, and that of a legislator. In the former of these, indeed, a candidate is obliged to undergo a regular examination; but this, at the best, can seldom do more than exclude those obviously *un*fit: in neither of these walks of life does each man's success depend, in near the same degree, on his qualifications, as in the medical or legal professions.

That education, therefore, which is the most useful on public grounds,—the best to be pursued as a system,—and

the most suitable to a University, should seem to be that which, while it affords general cultivation of mind to all, whether designed to be private gentlemen, or members of any liberal profession, bestows especial attention on those points which are connected with civil and religious affairs;—points *professionally* concerning those who are to hold office in Church or State, but with which, in a Christian country, and under a free government, none can be *un*concerned.

How far these views were adopted by the founders, reformers, and conductors, at various times, of our University system, cannot with any certainty be ascertained: but the system itself, both in its earliest form, and under its various modifications, seems to indicate that something of this kind was in the minds of those who had the regulation of it.

Without entering into antiquarian researches, or into such minute details as would, to most readers, be uninteresting, it may be sufficient to remark that there has always been a distinction between degrees in *Arts* and in the *Faculties*; the former having reference to a course of study which, in most instances, is required as preliminary, and which may be properly called unprofessional. So far is Adam Smith's notion from being correct, that the Universities were ecclesiastical establishments, and designed for the education of the clergy. The degrees in Arts are reckoned two; the higher, which is that of M. A. (Master of Arts), requiring a course of (supposed) study of seven years; the same time which (probably from a fanciful preference of the number seven) was required in an *apprenticeship* to any trade, to qualify a man to set up as a *master* carpenter, shoemaker, &c., *i. e.* as an instructor in the particular *art* which he is supposed to have sufficiently acquired. In the same manner, a Master of Arts is supposed qualified to give lectures in arts; and the ceremony of conferring the degree consists in a formal admission of him to that right. Four years, kept according to rule, are required of a candidate for the inferior degree of Bachelor of Arts, which is, in fact, the only degree taken by the majority. But previous to this, there is, virtually, though not in name, another degree, that of Sophista Generalis, vulgarly 'Soph,' to which a candidate may be admitted, under the existing regulations, after passing the requisite examination, in his second year.

In the faculties, the highest degree is that of, not Master, but Doctor, which seems, in etymology as in practice, equivalent to it. The inferior degree in these, as in arts, is that of Bachelor. For the degrees of Bachelor or Doctor of

Civil Law the candidate is not required, as in Theology and Medicine, to pass through Arts, as it is called, *i. e.* previously to take his degree of M.A.

Not a few, probably, who have been educated, and have graduated in Arts at Oxford, would be at a loss if asked *what* the arts originally were, and how many, from which the degrees of B.A. and M.A. take their designation. The favourite number seven again appears in this distribution; the arts were divided into the *trivium*, consisting of—1. Grammar; 2. Logic; 3. Rhetoric;—and the *quadrivium*, comprising —4. Music; 5. Arithmetic; 6. Geometry; 7. Astronomy: and these seven liberal arts (answering to the seven cardinal virtues, seven deadly sins, seven sacraments, &c., &c.) were enumerated, according to the practice of the times, in these memorial lines:

> Gram. loquitur; Dia. vera docet; Rhet. verba colorat;
> Mus. canit; Ar. numerat; G. ponderat; A. colit astra.

There is, however, an anomalous circumstance connected with one of these arts, Music; distinct degrees of Bachelor and Doctor being conferred in that art, which is not the case with any of the others. There are generally two or three graduates in Music on the books, but they are not, as such, members of convocation.

For all degrees, whether in arts or in any of the faculties, candidates seem originally to have been required to obtain the approbation of the *highest Graduates* in each department respectively*; and to have been examined by them for that purpose in various ways, according to the regulations established from time to time. And virtually this system now subsists, in respect of the degree which is now of the most substantial importance, that of B.A.; the examination for that degree, and for the preliminary step to it, that of Soph, being conducted by certain Masters of Arts selected and approved by Convocation, and who may be regarded as exercising the functions of representatives, as far as that business is concerned, and deputies of the whole body of Masters. The ancient mode of trying a candidate's proficiency by public disputation is exchanged for one more conformable to modern manners; the Masters examine him, both orally and on paper, by questions and passages of authors to be translated. The candidate who satisfies them obtains from them a certificate to that effect; and also (in the second of these two examinations, that for the degree of B.A., and not in the

* Viz. Masters for degrees in Arts, and Doctors for any other.

former, called the Responsions) he has his name enrolled, if deserving, in a register of honour, consisting of different Classes. Should the candidate fail of obtaining any testimonials from the examiners, it passes in silence, and he is at liberty to present himself at a subsequent examination

For many matters of detail, which some may be curious to know, the Oxford University Calendar ought to be consulted.

In the next Number it is proposed to give some account of that which cannot be learned from a Calendar, viz. what is the actual state of the University of Oxford as an engine of education, and what improvements, or supposed improvements, in the system, have been or may hereafter be suggested.

ELEMENTARY INSTRUCTION IN SCOTLAND, THE UNITED STATES, SILESIA, BAVARIA, &c.

The advantages resulting from the instruction of all classes in the elementary branches of education seem now to be pretty generally admitted. There is, however, a very great diversity of opinion among the most zealous friends to public instruction, as to the best mode in which it should be afforded. Some object altogether to the interference of government in the matter: they contend that the public should be left to supply themselves with instruction, as they are left to supply themselves with the various necessaries and conveniences of life; and that, if it be really as useful as is represented, the vast majority of individuals will make a point of securing its advantages to themselves and their children. Others, again, contend that this is one of those cases in which governments should interfere to assist the efforts of their subjects in bringing about a desirable result: they argue that, though schools may be established in cities and populous districts, from a sense of their advantage merely, without any public encouragement, yet that, in pastoral or agricultural districts, where the population is comparatively thin, if there be no public schools, the children of those only who can afford to keep a tutor, or who can themselves perform his functions, will be educated; and as such individuals bear, in all cases, a very small proportion to the total population, it follows that the great mass of the inhabitants of the districts in question would, under the circumstances supposed, be totally uneducated: they further

argue that the poor are but too apt to undervalue education, or at least to postpone it for more sensible objects; and that, where the competition for employment is so intense as in most countries of Europe, if it be neglected in the earlier period of life, the deficiency can rarely be supplied at any subsequent period. An endless variety of additional arguments has been produced on both sides; but though the question be not free from difficulty, we are inclined to think that they are right who argue in favour of the policy of establishing a universal system of elementary instruction by authority of government. This, as it appears to us, is the only means by which the benefits of a well-digested plan of instruction can be completely diffused throughout the country, and brought home, as it were, to the door of the poor man. It is idle to suppose, as many have done, that private benevolence will ever fully supply so great a desideratum, or that it will be able to furnish the poor, either in cities or country districts, with that solid and really useful instruction of which they stand so much in need. It is true that public charity has, in this respect, done, and is still doing, a great deal of good. Supposing, however, that charity-schools were as extensively introduced as national ones ought to be, and that they were furnished with equally good masters—neither of which suppositions is of a sort that can ever be realized—still they would be liable to many very serious inconveniences. Something of degradation always attaches to the idea of being educated at a school supported, either wholly or partly, by voluntary contributions. Such schools are rarely attended by the children of the higher or middle classes; and those who do attend them cannot but feel that they are there only because they are paupers, dependent on the bounty of others; and this feeling has a strong tendency to weaken that sense of independence, of moral dignity, and self-respect, for the want of which the best education cannot fully compensate. In other respects, this system is open to many objections. 'It is really,' to borrow the expressions of Mr. Malthus, 'a great national disgrace, that the education of the lower classes of people in England should be left to a few Sunday-schools, supported by a subscription from individuals who can give to the course of instruction in them any kind of bias which they please.'—*Essay on Population*, fifth edition, vol. iii., p. 204.

We intend, at some future period, to enter into a pretty full examination of the truly important questions to which we have now merely alluded. We shall then state the reasons which seem to us not merely to warrant, but to require, the

interference of government in the establishment of schools for elementary instruction in every district of the country; explaining what we conceive to be the proper mode of establishing such schools, the branches of education that ought to be taught in them, and the sort of control under which they ought to be placed. At present, however, we think we shall be doing an acceptable service to our readers, by laying before them a few details as to what has actually been accomplished, in regard to the establishment of a system of public instruction in other countries. This will greatly facilitate our future inquiries, by showing what difficulties have been surmounted, and by furnishing facts and statements to which an appeal may easily be made. We begin with the Scotch system, not because it is the least known, though the English public are but very imperfectly informed with respect to it, but because it is one of the best that has been established, and because its institution is the most applicable precedent in the condition of England.

Since the era of the Revolution, a public school has been established in every parish in Scotland. The foundations of the system were, however, laid at a much earlier period. It was enacted by the Scotch Parliament, in 1494, that all barons and substantial freeholders throughout the realm should send their children to school from the age of six to nine years, and then to other seminaries, to be instructed in the laws; that the country might be possessed of persons properly qualified to discharge the duties of sheriffs, and to fill other civil offices. Those who neglected to comply with the provisions of this statute were subjected to a penalty of 20*l*. Scotch; and Dr. Henry has remarked, that soon after the passing of this act, several individuals began to be distinguished for their classical acquirements, and that learning was much more generally diffused throughout the country.

In 1615, an act of the Privy Council of Scotland empowered the bishops, along with the majority of the landlords or heritors, to establish a school in every parish in their respective dioceses, and to assess the lands for that purpose. This act of the Privy Council was confirmed by an act of the Scotch Parliament, in 1633; and under its authority schools were established in the lower and the more cultivated districts of the country. But the system was still far from being complete; and the means of obtaining elementary instruction continued so very deficient, that it became necessary to make a more complete and certain provision for the establishment of

schools. This was done by the famous act of 1696, the preamble of which states, that 'Our Sovereign Lord, considering how prejudicial the want of schools in many places has been, and how beneficial the establishing and settling thereof will be to this church and kingdom, therefore, his Majesty, with advice and consent, &c.' The act went on to order, that a school be established, and a schoolmaster appointed in every parish; and it further ordered that the landlords should be obliged to build a school-house, and a dwelling-house for the use of the master; and that they should pay him a salary, exclusive of the fees of his scholars; which should not fall short of 5*l.* 11*s.* 1*d.* a year, nor exceed 11*l.* 2*s.* 2*d.* The power of nominating and appointing the schoolmaster was vested in the landlords and the minister of the parish; and they were also invested with the power of fixing the fees to be paid him by the scholars. The general supervision of the schools was vested in the presbyteries in which they are respectively situated; who have also the power of censuring, suspending, and dismissing the masters without their sentence being subject to the review of any other tribunal.

It has been usually expected that a Scotch parish schoolmaster, besides being a person of unexceptionable character, should be able to instruct his pupils in the reading of English, in the arts of writing and arithmetic, the more common and useful branches of practical mathematics, and that he should be possessed of such classical attainments as might qualify him for teaching Latin, and the rudiments of Greek. The General Assembly of the Church of Scotland recommended, in 1706, 'To such as have the power of settling schoolmasters in parishes, to prefer those who have passed their course at colleges or universities, and taken their degrees, before others who have not, *cæteris paribus.*' This judicious recommendation has not been so generally attended to as it ought to have been, and the parochial schoolmasters, as a body, have rather degenerated of late years in their attainments; but still very many of them have had the advantage of a University education.

It will most probably excite surprise, that any tolerably well educated person should ever have thought of becoming a candidate for a situation, the emoluments of which were so trifling as those of a Scotch parish schoolmaster have always been. But for a long period after the passing of the act of 1696, a salary of 11*l.* a year, exclusive of a house and garden, was in Scotland no inconsiderable object; and, added to the school fees, served to place the master nearly

on a level with the bulk of the respectable inhabitants of country parishes. At the period in question, refinement had made very little progress in the northern parts of the empire. The wants of the people were few and easily supplied; they had no taste for foreign commodities, of which, indeed, they were almost entirely ignorant; their clothes, which were of the coarsest description, were usually manufactured at home; and, although the clergymen and respectable inhabitants of those days may have had a greater command over the necessaries of life, they certainly were less abundantly supplied with its comforts and conveniences, than the labourers of the present day. The rent of the best shops in Glasgow, which now exceeds 200*l.* a year, did not, a century ago, exceed 5*l.* or at most 6*l.* (Cleland's Annals of Glasgow); and there has been a similar, though, perhaps, a less extraordinary rise in the price of most other things. The attainment of the station of schoolmaster was also considered as a preparatory step to the situation of clergyman, which at that time was an object of the highest ambition. It is difficult, indeed, to conceive how few avenues were then opened in Scotland to wealth or distinction of any sort. Enterprising young men were usually in the habit of emigrating to foreign countries, where many of them became highly distinguished both in arts and sciences; but previously to the middle of last century, there were hardly any means by which the most ambitious spirit, if he remained at home, could hope to elevate himself above the rank to which he originally belonged; so that humble as it was, the situation of schoolmaster was regarded as a very desirable one by the mass of the people. But after the introduction of manufactures and commerce had opened new and various channels by which ingenious, enterprising, and industrious individuals might attain to opulence and consideration, and after a vastly more expensive mode of living had been, in consequence, universally introduced, the situation of the schoolmasters was changed very much for the worse; their poverty became quite as conspicuous as their learning; they drew their recruits only from the lowest ranks of the people; and their character, as a body, was a good deal deteriorated. At length, however, their depressed condition attracted the attention of the legislature; and in 1802 an act was passed, raising the *maximum* statutory salary, payable to the master, to 22*l.* 4*s.* 5*d.* and the *minimum* to 16*l.* 13*s.* 4*d.*, both exclusive of school fees; and supposing the number of established schoolmasters to be 900, and their statutory salaries to amount to 20*l.* a year at an average, both of which suppositions are, we believe, very near

the truth, it will be seen that the whole cost of this most excellent establishment, exclusive of houses, gardens, and fees, does not exceed 18,000*l*. a year.

The fees paid by the scholars attending the Scotch parish schools have always been very moderate. At this moment they may be reckoned, at an average, at about 2*s*. 6*d*. or 3*s*. a quarter for English; 4*s*. or 4*s*. 6*d*. for writing and arithmetic; and from 5*s*. to 7*s*. 6*d*. for Latin and Greek. In some schools the charges are less than these, and in a few they are higher; but we believe that the above may be set down as the common and ordinary charge. The moderation of the school fees has brought the advantages of a *paid* and therefore a *prized* education within the reach of almost every individual. The custom of sending children to school has long been quite universal. The poorest individuals endeavour to secure the advantages of education to their families; and would consider it as the greatest misfortune were they unable to send their children to school.

It would be no easy matter to exaggerate the beneficial effects of the elementary instruction obtained at parish schools, on the habits and industry of the people of Scotland. It has given to that part of the empire an importance to which it has no claim, either from fertility of soil or amount of population. The universal diffusion of schools, and the consequent education of the people, have opened to all classes paths to wealth, honour, and distinction. Persons of the humblest origin have raised themselves to the highest eminence in every walk of ambition, and a spirit of forethought and energy has been widely disseminated.

At the period when the act of 1696 was passed, Scotland, which had suffered greatly from misgovernment and religious persecutions, under the reigns of Charles II. and his brother, James II., was in the most unprosperous condition. There is a passage in one of the discourses of the celebrated Scotch patriot, Fletcher of Saltoun, written in 1698, only two years after the act for the establishment of parochial schools had been passed, that sets the wretched state of the country in the most striking point of view.—'There are,' says he, 'at this day in Scotland, besides a great many families very meanly provided for by the church boxes, with others who, by living upon bad food, fall into various diseases, two hundred thousand people begging from door to door. These are not only no way advantageous, but a very grievous burden to so poor a country. And although the number of them be, perhaps, double to what it was formerly, by reason of this present great distress, yet in all times there has been about

a hundred thousand of these vagabonds, who have lived without any regard or subjection, either to the laws of the land, or even those of God and nature. No magistrate could ever discover which way one in a hundred of these wretches died, or that ever they were baptized. Many murders have been discovered amongst them; and they are a most unspeakable oppression to poor tenants, who if they do not give bread, or some kind of provision, to perhaps forty such villains in a day, are sure to be insulted by them. In years of plenty many thousands of them meet together in the mountains, where they feast and riot for many days; and at country weddings, markets, burials, and other the like public occasions, they are to be seen, both men and women, perpetually drunk, cursing, blaspheming, and fighting together. These are such outrageous disorders, that it were better for the nation they were sold for the gallies or the West Indies, than that they should continue any longer to be a burden and a curse upon us.'—(First Discourse, p. 144.)

We suspect that there must be some exaggeration in the numbers mentioned in this very striking paragraph. At the period when this Discourse was written, there were not certainly a million of inhabitants in Scotland; and it is difficult to conceive how so large a proportion as a *fifth*, or even a *tenth*, could have subsisted as common beggars. There can be no doubt, however, that their number was very great. Fletcher was intimately acquainted with the state of the country; his good faith is unimpeachable; and it is impossible he could have made such a statement unless there had been very strong and what he reckoned quite sufficient grounds for it. The destitution and disorder of the Scotch population at the period referred to, is, indeed, abundantly established by statements in acts of parliament, and other authoritative documents. No country ever rose so rapidly from so frightful an abyss. In the autumn circuits or assizes for the year 1757, no one person was found guilty, in any part of the country, of a capital crime. And *now*, notwithstanding the increase of population, and a vast influx of paupers from Ireland, there are very few beggars in the country; nor has any assessment been imposed for the support of the poor, except in some of the large towns, and in the counties adjoining England; and even there it is so light as scarcely to be felt. This is a great and signal change. We cannot, indeed, go quite so far as those who ascribe it entirely to the establishment of the parochial system of education. It is, no doubt, most true, that this system

has had great influence in bringing about the change; but much must also be ascribed to the establishment of a regular and greatly improved system of government; to the abolition of hereditary jurisdictions, by the act of 1748; and to the introduction of what may, in its application to the vast majority of cases, be truly said to be a system of speedy, cheap, and impartial justice. Certainly, however, it was the diffusion of education that enabled the people to avail themselves of these advantages; and which has, in consequence, led to a far more rapid improvement than has taken place in any other European country.

It is believed to be doubtful, whether Scotland can continue to reap the full benefit it has hitherto derived from this establishment, by commanding the services of a sufficient supply of properly qualified teachers, without a considerable increase of the salaries. At this moment the entire emoluments, including the fixed salaries and fees, but excluding the houses, of the schoolmasters of Scotland, do not, at an average, exceed 45*l.* or 50*l.* a-year. And under the present circumstances of the country, there are but slender grounds for thinking that individuals will be found, possessed of the qualifications hitherto deemed indispensable for a schoolmaster, to devote themselves to a business, where the emoluments are so trifling, and which affords them no prospect of being able to rise in the world. A want of properly qualified candidates for the situation of schoolmaster has, in many instances, been already experienced; and it seems to be the opinion of all who have reflected upon the subject, that something ought to be done to improve the condition of the masters. This, however, is a very difficult subject, and one that requires the maturest consideration. It is plain that the increase ought not to be made by raising the school fees; for, were they raised, the great object of the institution, which is to afford elementary instruction to the lower orders of the people, would, in so far, be defeated; and, on the other hand, there are great difficulties with respect to an increase of the fixed salary. It must always be borne in mind, that the object of that salary is not to render the master independent on the fees of his scholars, or to furnish him with the greater part of his subsistence, but to serve as a species of retaining fee or premium, to secure the constant attendance of a person who shall be able to instruct the young, and who shall have the strongest interest to perfect himself in his business, and to attract the greatest number of scholars to his school. If the master derived anything like a tolerably comfortable

income from his fixed salary, it is clear he would not have the same interest to exert himself that he has at present; and, like other functionaries placed in similar situations, he would soon learn to neglect his business, and to consider it as a drudgery only to be avoided.

But the difficulty in question is not an insuperable one; and in some future number we shall endeavour to show how the emoluments of the schoolmasters may be increased, without in any respect diminishing their usefulness, and how several defects, that at present exist in the Scotch system, may be remedied.

The United States of America have, with a degree of intelligence and liberality that does them high honour, made the most ample provision for the elementary instruction of all classes of people. In the new states, *one* square mile in every township, or one *thirty-sixth* part of all the lands, has been devoted to the support of common schools, besides seven entire townships for the endowment of larger seminaries. In the older states, grants of land have frequently been made for the same purposes; but in New England all sorts of property are assessed for the support of the primary schools, which are established in every township. The principles of this system and its practical operation were pourtrayed in a very striking manner by Mr. Webster, a distinguished member of Congress, in the convention held at Massachusetts in 1821. 'For the purpose of public instruction,' said he, 'we hold every man subject to taxation in proportion to his property, and we look not to the question whether he himself have or have not children to be benefited by the education for which he pays; we regard it as a wise and liberal system of police, by which property, and life, and the peace of society, are secured. We seek to prevent, in some measure, the extension of the penal code, by inspiring a salutary and conservative principle of virtue and of knowledge in an early age. We hope to excite a feeling of respectability and a sense of character, by enlarging the capacities and increasing the sphere of intellectual enjoyment. By general instruction we seek, so far as possible, to purify the moral atmosphere; to keep good sentiments uppermost, and to turn the strong current of feeling and opinion, as well as the censures of the law, and the denunciations of religion, against immorality and crime. We hope for a security beyond the law and above the law, in the prevalence of enlightened and well-principled moral sentiment. We hope to

continue and to prolong the time, when, in the villages and farm-houses of New England, there may be undisturbed sleep within unbarred doors. Knowing that our government rests directly upon the public will, that we may preserve it we endeavour to give a safe and proper direction to that public will. We do not, indeed, expect all men to be philosophers, or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests upon that trust, that by the diffusion of general knowledge, and good and virtuous sentiments, the political fabric may be secure, as well against open violence and overthrow, as against the slow but sure undermining of licentiousness. We rejoice that every man in this community may call all property his own, so far as he has occasion for it to furnish for himself and his children the blessings of religious instruction and the elements of knowledge. This celestial and this earthly light he is entitled to by the fundamental laws. It is every poor man's undoubted birthright—it is the great blessing which this constitution has secured to him—it is his solace in life—and it may well be his consolation in death, that his country stands pledged, by the faith which it has plighted to all its citizens, to protect his children from ignorance, barbarism, and vice.'

In the southern states of the Union, where the means of education were not so abundant, a zealous attention has lately been awakened to the subject; and families in sequestered situations unite, at considerable expense, to find teachers for their children. But no state in the Union, nor, perhaps it may be added, any country in the world, is so amply provided with the means of elementary instruction as the state of New York, in which there were, in 1823, no less than 7,382 common schools, affording education to 400,534 young persons, which was rather more than a *fourth* part of the entire population! In the middle and eastern states, the common people are, perhaps, better educated than in any other part of the world; and there is every probability that the western and southern states will soon share the same distinction. It is to this circumstance—to the superior degree of comfort the people enjoy—and to the elevation of character nourished by their free institutions, that we must attribute the non-existence, in most parts of the United States, of what is usually termed a mob or rabble.*

Of the continental states, Switzerland and Holland are among the best furnished with the means of obtaining ele-

* Malte Brun's Geography, vol. v. p. 249.

mentary instruction; and it is gratifying to observe the efforts that have lately been made to diffuse education throughout other countries. Frederick the Great of Prussia, whose fame as a warrior has obscured his talents as a statesman, has the distinguished merit of being the first continental sovereign who endeavoured to bring education within the reach of all classes of his subjects. The late President of the United States, Mr. Quincy Adams, has, in his Letters on Silesia, given a very full and interesting account of the seminaries which Frederick caused to be established in every village of Silesia, and which have since been copied in other states, in consequence of the experience of their good effects. We are sure we shall gratify our readers by laying before them a few extracts from Mr. Adams' valuable and interesting work.

'At the time of the conquest of Silesia,' says Mr. Adams, 'education had seldom been made an object of the concern of governments; and Silesia, like the rest of Europe, was but wretchedly provided either with schools or teachers. In the small towns and villages, the schoolmasters were so poorly paid, that they could not subsist without practising some other trade besides their occupation as instructors; and they usually united the character of the village fiddler with that of the village schoolmaster. Even of these there were so few, that the children of the peasants in general, throughout the province, were left untaught. This was especially the case in Upper Silesia. Frederick issued an ordinance, that a school should be kept in every village, and that a competent subsistence should be provided for the schoolmaster, by the joint contribution of the lord of the village and of the tenants. The superintendence of the schools was prescribed as the duty of the clergy.'

Mr. Adams then goes on to describe the assistance that Frederick derived in the prosecution of this meritorious plan from Felbiger, an Augustine monk, who travelled to different countries to obtain an acquaintance with the best modes of teaching, and under whose superintendence pattern schools were established at Breslau, Glatz, and other places, which all the candidates for the situation of schoolmaster are obliged to attend. Mr. Adams then continues as follows:—

'After all these preparatory measures had been carried into effect, an ordinance was published in the year 1765, prescribing the mode of teaching as adopted in the seminaries, and the manner in which the clergy should superintend the efficacious establishment of the system. The regulations of this ordinance prove the earnestness with which the King of

Prussia laboured to spread the benefits of useful knowledge among his subjects. The teachers are directed to give plain instruction, and upon subjects applicable to the ordinary concerns of life; not merely to load the memory of their scholars with words, but to make things intelligible to their understanding: to habituate them to the use of their own reason, by explaining every object of the lesson, so that the children themselves may be able to explain it, upon examination. The candidates for school-keeping must give specimens of their ability, by teaching at one of the schools connected with the seminary, in presence of the professors, that they may remark and correct anything defective in the candidate's method. The school tax must be paid by the lord and tenants, without distinction of religions. The boys must all be sent to school from their sixth to their thirteenth year, whether the parents are able to pay the school tax or not. For the poor, the school money must be raised by collections. Every parent or guardian who neglects to send his child or pupil to school, without sufficient cause, is obliged to pay a double tax, for which the guardians shall have no allowance. Every curate must examine, weekly, the children of the school in his parish. A general examination must be held annually by the deans of the districts of the schools within their respective precincts; and a report of the condition of the schools, the talents and attention of the schoolmasters, the state of the buildings, and the attendance of the children, made to the office of the vicar-general, who is bound to transmit all these reports to the royal domain offices, from which orders are issued to supply the deficiencies in the schools. This system was at first prepared only for the Catholic schools; but it was afterwards adopted by most of the Lutheran consistories.

'The system had at first many difficulties to contend with. The indolence of the Catholic clergy was averse to the new and troublesome duty imposed upon them. Their zeal was alarmed at the danger arising from this diffusion of light to the stability of their church; they considered alike the spirit of innovation and the spirit of inquiry as their natural enemies. But the firmness of the government overcame every obstacle. There are now more than 3500 schools established in the province. Before the seven years war, there had not been more than one periodical journal or gazette published in the province at one time; while there are now no fewer than seventeen newspapers and magazines, which appear by the day, the week, the month, and the quarter, and many of them upon subjects generally useful, and which contain very

valuable information on all the most interesting topics of discussion.'

The effects of this system of education on the condition of the people have been equally striking and beneficial. Agriculture and manufactures have been vastly improved and extended. Silesia is, indeed, at this moment, one of the most flourishing districts of the continent. The revolution effected by the introduction of the system of universal instruction is stated by the native writers, quoted by Mr. Adams, to have been not less important, though of a slower and milder character than that of Luther. The habits of the people have been signally improved; and they have become, as every one knows, among the most intelligent, orderly, and industrious, in Europe.

According to a German periodical of good authority, (*Allgemeine Schulzeitung*, Darmstadt,) it appears that, of the 12,256,725 inhabitants belonging to the different states forming the Prussian monarchy in 1826, there were 4,487,461 children below fourteen years of age, being 366 children for every 1000 inhabitants, or nearly $\frac{11}{30}$ of the whole population. From the same work it further appears that there were then in the Prussian dominions 20,887 elementary schools, and 736 schools for more advanced scholars, exclusive of Universities. These schools employed 22,262 masters, 704 mistresses, and 2,054 assistants. Of every 1000 children in Prussia, under fourteen years of age, 371, at an average, attended school. In some places, however, the proportion was much higher, and in others proportionally less, showing that the advantages of education are still very unequally diffused over the kingdom.

The following is a list of the provinces, and of the number of children, out of every 1000 under fourteen years of age, at school:—

Magdebourg	524	Frankfort, &c.	423
Merzebourg	495	Potsdam	416
Erfurt	467	Stettin	413
Liegnitz	459	Minden	412
Arnsberg	443	Treves	410
Breslau	438	Oppeln	380
Munster	432	Aix-la-Chapelle	272
Kœslin	370	Marienwerder	242
Gumbinnen	355	Stralsund	202
Königsberg	345	Posen	182
Cologne	311	Bromberg	148
Dantzig	295		

General average, 371 per 1000.

But the change for the better, consequent to the system of instruction introduced into Silesia, seems to be inferior to that which has followed the introduction of national schools into Wirtemberg, Baden, Bavaria, and generally in all those states included in what was formerly denominated the Confederation of the Rhine. In Wirtemberg, indeed, the inhabitants have been pretty well supplied with the means of education for near a century past; but, during the last thirty years, the system has been very greatly extended and improved. At present, not only in Wirtemberg, but also in Baden, Hesse, &c., a public school is established in every parish, and, in some instances, in every hamlet. The master receives, as in Scotland, a fixed salary from the parish, exclusive of a small fee from the pupils, varying according to their age, and the subjects in which they are instructed. The fees are fixed by government, and are everywhere the same. Exclusive of the salaries and fees, the masters are furnished with a house, a garden, and, in most instances, a few acres of ground, corresponding to the *glebes* of the Scotch clergy. The law requires that the children should be instructed in reading, writing, and arithmetic; and it is specially enacted that they shall be instructed in the principles of German grammar, and in composition. The books used in the schools of Wirtemberg and Baden, and generally throughout Germany, are very superior to those used in similar establishments in this country. They consist of geographical, biographical, and historical works, and of elementary treatises on moral science, natural history, and the principles and practice of some of the most important and useful arts. In all the larger schools, the boys and girls are kept separate, and the latter, in addition to reading, writing, and arithmetic, are taught all sorts of needle-work, the knitting of stockings, the making of clothes, &c.; receiving at the same time, lessons in the art of cookery, the management of children, &c. The supervision of the schools is intrusted, in every parish or *commune*, to a committee, consisting of a few of the principal inhabitants; the clergy of the parish, whether Protestants or Catholics, being always *ex-officio* members of the committee. This body is intrusted with the duty of inspecting the school, and is bound to see that the master does his duty, and that the children regularly attend. No particular system of religion is allowed to be taught in any of the schools of Wirtemberg, and most of the other Germanic states. The tuition of this important branch is left entirely to the clergy, and the parents of the children, so that the sons and daughters of Catholics, Lutherans, Calvin-

ists, Quakers, &c. frequent the same schools, and live in the most perfect harmony.

There is, it is said, the greatest desire among the lower classes that their children should enjoy the advantages of the excellent education provided for them. But the governments of Wirtemberg, Hesse, Bavaria, &c., have not trusted entirely to this feeling, but have enacted regulations by which *every individual is compelled to send his children to school, from the age of six to fourteen years!* In Hesse, for example (and its regulations are similar to those in the other states), the public functionaries transmit regularly to government, once every six months, a list of the children in their respective districts who have attained their sixth year; and they are bound to see that they are sent to school. In the event of the parents being unable to pay the school fees, a statement to that effect is prepared by the parochial authorities, and the fees are paid by the public. The German publicists contend that this part of the system is indispensable to ensure its entire success; and that, were it left to the option of the parents, some children would not be educated at all; while a great many would be taken prematurely from school, before they had mastered those more advanced branches that are of the greatest importance. We are aware of the objections that may be urged to this system; but we are firmly convinced that they are very far overbalanced by the advantages of which it is productive.

In Bavaria, the beneficial consequences resulting from the establishment of a system of national education have been more signal than in any other European country. Half a century ago, the Bavarians were the most ignorant, debauched, and slovenly people between the Gulf of Genoa and the Baltic. (For proofs of what is now stated, see *Riesbeck's Travels in Germany*, vol. i., cap. xi., &c.) That they are at present patterns of morality, intelligence, and cleanliness, it would be going too far to affirm; but we are bold to say that no people has ever made a more rapid advancement in the career of civilization, than they have made during the last thirty years. The late and present Kings of Bavaria have been truly the fathers of their country; for they have not only swept away myriads of abuses, and established a representative system of government, but they have laid the only sure foundations of permanent and real improvement in the organization of a truly admirable system of national education. A school has been established in every parish of Bavaria, to which, as already observed, every one is obliged to send his children from the age of six to fourteen;

Lyceums, Colleges and Universities have also been instituted for the use of those who are desirous of prosecuting their studies; and every facility is afforded for the acquisition of the best instruction, at the lowest price. In Bavaria the schools are inspected, and reports regularly made upon their condition, by properly qualified officers, appointed for that purpose by government. There is a particular department in the ministry of the Interior appropriated to the supervision of the different kinds of schools. We subjoin a list of the places of education and the number of teachers, pupils, &c. in Bavaria, in 1828.

PLACES OF EDUCATION.	Number.
Universities	3
Lyceums	7
Gymnasia	18
Colleges	21
Preparatory Schools	35
Houses of Education	16
,, for higher branches	7
Boarding Schools for girls	2
Normal Schools	7
School for foreigners	1
* Schools of Law	2
Veterinary Schools	2
Schools of Midwifery	2
Royal Schools	2
Public or National Schools	5,394
TEACHERS AND PUPILS.	
Inspectors of Schools	286
Teachers	7,114
Pupils of all classes, about	498,000

Now, as the population of Bavaria is almost exactly four millions, it follows, that not less than *one-eighth* of the entire population is at school. This is a very high proportion, and shews conclusively how universally education is diffused. In Scotland it is supposed that the individuals at school amount to about *one-tenth* of the entire population.

Throughout Germany the greatest attention is paid not merely to the acquirements of the teachers, but also to their *capacity for teaching*. To ensure proficiency in this respect, *normal* or pattern schools have been established in all the principal towns, which are attended by those who are candidates for the situation of master; who, besides being instructed in the branches they are to be employed in teaching, are at the same time instructed in the best methods of teaching, and in the conduct proper to be followed in the ma-

nagement of scholars. Some of these schools justly enjoy a very high reputation; and their establishment has had the most powerful and salutary influence on the system of instruction. No one is admitted to the pattern schools under thirteen years of age; and candidates are obliged to have made considerable proficiency in various branches. At the famous *normal* school of Rastadt, the pupils, among other indispensable requisites, are expected to be masters of the elements of music, particularly the *piano!* (*Bulletin des Sciences Géographiques*, Nov. 1829, p. 334.) The elementary course at the same school commences with anthropology.

Mr. Loudon, well known to many of our readers as the author of some excellent compilations on agriculture and gardening, travelled over most parts of Wirtemberg, Bavaria, and Baden, in 1828, and bears the most unqualified testimony to the excellence of the system of public instruction adopted in them, and to the beneficial effects that have resulted from it. His statement, in some of its details, is, however, probably exaggerated; and the present condition of the peasants ought not to be attributed *entirely* to education, as it is said to have been very good before the present system of education was established.—'From what,' says he, 'I have seen of this country (Wirtemberg), I am inclined to regard it as one of the most highly civilized in Europe. I am convinced that the great object of government is more perfectly attained here, than even in Great Britain; because, with an almost equal degree of individual liberty there are incomparably fewer crimes, as well as far less poverty and misery. Every individual in Wirtemberg reads and thinks, and to satisfy oneself that such is the case, he has only to enter into conversation with the first peasant he meets; to observe the number and style of the journals that are everywhere circulated; and the multitude of libraries in the towns and villages. I did not meet with a single beggar in Wirtemberg, and with only one or two in Bavaria and Baden. The dress of the inhabitants of Wirtemberg, as well as those of a great part of Bavaria and Baden, appeared to me to indicate a greater degree of comfort than I had ever observed in any other country, with the exception perhaps of Sweden, and the lowlands of Scotland.' For these and many other highly interesting details, as to the state of education and society in Wirtemberg and Bavaria, &c., we beg to refer to Mr. Loudon's excellent letter to Count Lasteyrie, entitled *Des Etablissemens pour l'Education Publique en Bavière, &c.*

The provision for public instruction in France, particularly

in the southern departments, is very defective. It was enacted by a law of the 13th September, 1791, 'That a system of public instruction should be organized, that the public schools should be open to every one, and that no fees should be charged for the elementary branches.' But this law, like so many others promulgated about the same period, has not been carried into effect; and at this moment France is worse provided with the means of elementary instruction, than most other European countries, Spain and Portugal excepted. Societies, and individuals at Paris, and other populous towns, have laudably exerted themselves to supply so great a want. But their efforts being openly opposed by the clergy, and secretly also by the late government, were not so successful as they would otherwise have been. It has been estimated by late French writers, well versed in such subjects, that there are at present in France 6,000,000 of children of age to attend primary and other schools; but that not more than 1,500,000 are in the way of being instructed! In addition to the children who are thus left uneducated, it is calculated that about 10,000,000 of adults, being about one-third of the entire population, can neither read nor write.—(*Bulletin Supplémentaire des Sciences Géographiques*, 1828, p. 25.) This state of things, as was to be expected, has already attracted the attention of the new government, who, we are glad to observe, have brought forward measures upon the subject.

The Russian government has done honour to itself, by the zeal with which it has laboured to promote the instruction of its subjects; and the prodigious advances which they have made within a comparatively limited period, shew that it has not laboured in vain.

It has been contended by Mandeville and others, that the universal instruction of the poor, in the elementary branches of education, would be injurious, inasmuch as it would render them discontented with their situation, and would consequently lead to tumult and disorder. Many answers have been given to this false and delusive though often repeated statement. But the real and conclusive answer is derived from experience. Of those who contend that the education of the lower orders will make them all anxious to be gentlemen, impatient of their condition, and prone to insubordination, we have only to ask, has the general instruction of the lower orders done this in Scotland, the United States, Switzerland, the province of Holland, Silesia, and Protestant Germany? Were any one asked to name the countries in which

the people are most distinguished for industry and forethought, and a proper respect for their lawful superiors, these are the very countries he would specify. It is in these that the blessings of education have been most widely diffused; and while their inhabitants know what is due to themselves, they also know what is due to others. They would firmly oppose any invasion of their rights, and would not be much disposed to tolerate any very flagrant abuses; but they are, at the same time, fully aware that turbulence and faction are utterly inefficient as means of advancing their condition, which must, in all cases, mainly depend on their own industry and good conduct. The question with respect to the advantages of education is therefore no longer *sub judice*.—It has been decided by the widest experience.—The patrons of ignorance, if there be now any such, ought, if they be consistent, to appeal to the state of Poland, Spain, and Turkey, as affording an excellent illustration of their doctrines; while the patrons of education point to Scotland, the United States, Protestant Germany, &c., as vouchers for all that they have stated.

EDUCATION AT ROME.

GREGORIAN, OR ROMAN COLLEGE.

This Institution, devoted to the public studies of the youth of the city and province of Rome, was founded, in 1582, by Pope Gregory XIII. (Buoncompagni), the well-known reformer of the Calendar, and the founder of several other colleges and useful establishments. The architect Ammanati of Florence was employed in raising this vast and handsome structure, which was considered at the time as the first and finest college in Italy. The Pope bestowed on it rich endowments, and gave the direction of the schools to the Society of Jesuits, who were then the most learned order in Christendom, and whose general, for the time, Borgia, contributed a donation of two hundred thousand crowns towards the support of the foundation. A seminary, or establishment for boarders and in-door students, was afterwards added. The College was styled *Gregorian*, in honour of its founder, but it became more generally known under the name of *Collegio Romano*, from its containing the great public schools of that capital, and being next in rank to the University of *La Sapienza*. The Society of Jesuits continued to have the direction of this as well as of most other colleges

in Rome, where they had no less than ten establishments, until 1773, when Clement XIV. (Gauganelli) suddenly suppressed their order. The education of youth was then taken from their hands, their professors were removed, or at least secularized, and a commission having been appointed to regulate the system of public instruction for the Roman States, the Roman College was placed under the superintendence of a Congregation of Studies, at the head of which was a cardinal, generally a man of learning, who appointed the masters and professors from among the secular clergy. It had been under this management for nearly thirty years when I became acquainted with it as a student and a boarder. The following is an outline of the method of our studies, as well as of the internal discipline of the institution.

The course of studies was as follows:—Boys, who entered at an early age, having merely a superficial knowledge of the first rudiments of Latin grammar, acquired under a private teacher, or at one of the day schools kept by the under curates and other unbeneficed clergymen, were sent to the *prima*, or lowest class, where Porretti's Latin grammar was explained, and exercises given on its rules, which were also learned by heart. Phædrus' Fables, and some other easy book, was read. The following year, the student, on being reported by the master as competent, proceeded to the *second*, or next class, in which Latin prosody was taught, and hexameters and pentameters were constructed, with the assistance of the *Regia Parnassi*. Ovid's Tristia and Tibullus' Elegies were read and parsed. Prose composition and syntax were attended to at the same time, and Cornelius Nepos and Cicero de Officiis were explained. With this class grammatical studies ended.

The next, or third year, the student entered the class of *Humanities*, which embraced the study of the elegancies of the Latin language, the figures of oratory, and the various forms and metres of Latin poetry. The work adopted as a text book in this class was that of Father de Colonia on Rhetoric, an excellent compilation in its way. Of the poets we read Virgil and Horace, and as models of prose Cicero's Orations and Sallust. The editions of the poets were expurgated of improper passages. Subjects were given by the professor for compositions in prose and in verse.

The fourth class was styled Rhetoric, in which Latin continued to be attended to, but the study of Greek constituted an essential part of this year's instruction. From thence the student proceeded to the higher or philosophical studies, the course of which generally occupied two years. In the first

year the mornings were devoted to algebra and geometry, the professor of which was the well known mathematician and astronomer Calandrelli, who had also the direction of the observatory annexed to the College. In the afternoons we attended the lecturer on logic and metaphysics, who read his course, written in Latin, and founded chiefly on the works of Genovesi, the Neapolitan metaphysician and economist of the last century. Locke and Condillac were freely quoted as authorities. Disputations also, in Latin, were occasionally held between the students.

The second year of 'philosophy' was devoted to physics and chemistry, the professor of which was Conti; natural history, on which Reichenbach lectured, and ethics. Both Conti and Reichenbach are names of note in the scientific world.

After these two years of philosophical course, those who wished to make deeper studies in any of the various sciences, or to take degrees in the learned professions, left the College, and repaired to the Gymnasium, or University of Rome, called *La Sapienza,* founded as early as the thirteenth century, and which is qualified to bestow diplomas; having chairs of civil and canon law, medicine, experimental philosophy, Oriental languages, divinity, &c. This University was under the direction of the College of Advocates, superintended by three cardinals.

Those students, however, who were destined for the church, continued in the Gregorian College, and went through their course of theology, which occupied four years. This was divided into scholastic and dogmatic theology, the Hebrew language, and the study of the sacred Scriptures; the lecturer on which last was, at this time, the celebrated Hebraist, de Rossi.

The College forms a quadrangle, having an ample court in the middle, round which are two tiers of arcades. The school, or class-rooms, are ranged along three sides of the square. Those of Latin, Greek, mathematics, and metaphysics are on the lower; and the others in the upper arcades. The fourth side communicates with the other part of the building, where are the seminary, or boarding establishment, the apartments of the professors and other functionaries, the library of the museum left by the learned Father Kircher, and the church of St. Ignatius, which belongs to the College.

The great college bell tolled every morning and afternoon half an hour before the beginning of the lectures, to give time to the students to assemble. The instruction in the lower schools lasted two hours in the morning and two in

the afternoon; and the lectures in the upper classes lasted each one hour. The classes closed at half past eleven in the morning, when the students went home to their families to dinner; they opened again at two in the winter, and four in the summer afternoons. The course of studies began on the 4th of November, and continued till the end of September following, with the interruption of a week's holiday at Christmas, and another week before Easter. Before the closing of the studies in September, there was a *concorso*, or academical competition for the prizes, which consisted of a gold and silver medal for each class. A day was appointed, in which all those students who had been assiduous and forward in their studies during the year, repaired to their respective schools and lecture-rooms, where a task was assigned to them by each professor, which they were to execute during that day, without quitting the room, and without communicating with each other. No books were allowed on this occasion. The papers being signed by each, were delivered into the hands of the professor, who forwarded them to the congregation, or committee of studies. Cardinal Borgia, a name not unknown in the Italian literary world, was president at the time I am speaking of.

About a fortnight afterwards came the day for the distribution of the prizes, which was made with much ceremony in the great College Hall, a spacious and handsome apartment, enriched with good paintings. The cardinal, and the other members of the congregation, all the professors, and many strangers of distinction, were seated at one end; the students occupying the remainder of the apartment. After a short prayer, the secretary read the names of those who had won the gold or the silver medals, beginning from the lowest class, and making honourable mention of those who came nearest, which was expressed by the word *accessit*. The former went, each in turn, to receive their prizes. Cardinal Borgia's good natured and intelligent countenance brightened as he delivered to each the well-earned token, which he accompanied by a few words of approbation and encouragement. The student kissed the cardinal's hand, the usual mark of respect towards dignitaries of the church, and returned to his seat. The whole sight was animating, and the prospect of the ensuing vacations for the whole of October, a month most delightful in southern Italy, and devoted to country excursions, added not a little to raise the spirits of youth; that day, in fact, closed the academical year, the gates of the schools were shut, and the little square before the College,

which divides it from the Doria palace, became silent and deserted.

Besides the annual prizes, there was in each class a system of rewards and encouragement for those students who were zealous in their application, and orderly in their behaviour. In the lower, or Latin classes, the boys were ranged into two divisions, called Romans and Carthaginians; occupying each one side of the school-room, and trying to rival one another. There was a Dictator, a *Princeps majorum gentium*, and a *Princeps minorum gentium*, appointed from among the ablest boys. These three dignitaries took their seats on the highest bench on one side of the room. Sometimes there were two Dictators, one for prose and the other for verse: sometimes the same individual held both ranks. Printed patents were delivered to them, stating their rank, and the length of time they had enjoyed it. They relieved the master of part of his labours, by looking over the tasks of the lower bench boys, and listening to their lessons; after which they made their report. Any undue favour or indulgence, if discovered, was severely rebuked, as sympathy, an easy or a generous disposition, would often give rise to partialities there, as well as in the most exalted councils or assemblies. The Dictator, in order to preserve his rank, was expected to resolve all difficult questions which other boys were not able to do. The master then used to turn gravely to him, and he was to answer quickly. If found deficient, and another boy, on being addressed by the master, shewed himself more ready and expert, the Dictator lost his seat, if not at the first, at least on the second occurrence of the kind. The Dictator was also expected to give to the rest of the school an example of steadiness and propriety of conduct. A strict silence was enjoined during school-time, not to be broken without the master's leave; and this was found to be the hardest restriction, and the most difficult to be enforced. Whispers between neighbours could not be repressed, which the master at times pretended not to see or hear. But if they were continued, and laughter, a common consequence, ensued, then an additional task, *pensum*, was imposed on the offenders. The number of these tasks was registered, and became a bar to obtaining a certificate of good conduct at the end of the year. When the master's eyes were turned away, or he seemed to be engaged in reading, then signs, a familiar mode of conversation in Italy, were resorted to by some of the boys; but, notwithstanding these occasional irregularities, a general appearance of decorum and propriety was preserved.

Punishments were very rare: there was a *Correttore*, a strong, vulgar, ill-favoured looking man, dressed in a rusty black gown, although he was a layman; he had his room near the gate, and was provided with canes and whips, to execute the orders of the master. In some aggravated cases of disobedience, or other misconduct, especially among the boys of the lower classes, he was called in to administer a correction on the backs (not *bare*, however) of the refractory. The culprit was made to take off his coat only, and was then held by two boys, while punishment was inflicted. But the occurrence was extremely rare, except in the *prima*, or lowest class. During four years I studied in the college, I remember only once having seen an instance of it: the disgrace was much more severely felt than the blows. When boys became unruly, I have seen the *Correttore* called in, but merely *in terrorem;* for on a show of returning duty, he was dismissed. The ordinary punishments were an extra task, or *pensum*, which was pretty frequently imposed, especially, as I have said, for the breaking of silence; kneeling in the middle of the school, banishment to the dunces' bench, in case of inveterate neglect or stupidity; and lastly, expulsion from the college.

The instruction given in the college might be called gratuitous, as there was only a trifling fee paid into the college fund on admission, and a yearly one at Christmas, left to the discretion of the students' families, to the respective masters. These latter were paid by the institution, and had apartments within the college. The funds of the establishment were derived from the endowments bestowed on it by the founder, Gregory XIII., and from legacies bequeathed by pious and benevolent persons. Boys were admitted into the lower classes as early as eleven years of age; they were expected to know the first rudiments of Latin grammar. Admission was easily obtained, after an inquiry about character, &c. They dressed in their own clothes, which were only required to be decent and clean. No distinction or favour was paid to rank; the humble tradesman's son was considered equal to the *benettante*, or young gentleman of property; and, if superior to the latter in abilities and assiduity, enjoyed a corresponding importance over him. Equality within the walls of the college was not only observed, but often inculcated on the minds of the youths by the masters. The religious duties consisted of a short prayer at the beginning, and another at the end of lessons; religious instruction was left to the parents, and to the curates of the respective parishes within which the boys lived. On Sundays, and other festi-

vals, the students were expected to attend mass in the annexed church of St. Ignatius.

Attached to the college was the *Seminario,* or boarding establishment, for a certain number of young men, who lived within the walls, and were subject to a regular discipline, while they attended the public classes, together with the out-door students. This was under the superintendence of a Rector, who was himself appointed by the Cardinal Vicario, the pope's *locum tenens* for the internal affairs of the city of Rome. A certain number of places in it, supported by the foundation, were filled by young men intended for the Church. These were called *alumni.* They generally went through the whole course of theological studies, and took orders; but if not so inclined, after some years passed at college, they were at liberty to leave. They provided at their own expense their clothes, linen, books, beds, and other furniture, and were expected to have a certain yearly allowance of pocket-money. Their board, lodging, and education were defrayed by the community. The nomination to vacancies belonged to the Pope and to some of the Cardinals. The remainder of the boarders paid a moderate yearly sum for their board and lodging, and left college after having completed their Latin studies, or their course of philosophy: these were called *convittori.* The whole cost of the latter to their families was about one hundred *scudi*, or dollars, per annum. No distinction whatever was made between these two classes of boarders, neither in their dress, accommodation, nor manner of living; they were altogether on the footing of perfect and indiscriminate equality. The dress consisted of a purple gown, or *sottana,* made of twilled stuff, buttoned down to the bottom; a black stiff collar and black stockings, shoes and silver buckles. When going out, they put on, over the gown, a *zimarra,* or loose cloak, of the same stuff and colour, with long flaps hanging from the shoulder, and a three-cornered hat. The inmates were divided, according to age, into three *camerate*, or squads, which were styled *piccoli, mezzani,* and *grandi*—little, middle, and grown-up. The squads consisted of from fifteen to eighteen boys each: they had their separate wards, or corridors, along which, on the right and left, were the rooms of the inmates, for every one had his separate apartment, into which no other boy was allowed to enter. A clergyman, with the title of Prefect, was in charge of each squad, and had his apartment on the same line with those of the boys, dined with them at the head of their respective tables, went out with them, and, in short, except during school-time, never lost sight of them.

There was nothing done to improve the students in the Italian language, if we except what took place during meals, when strict silence was enjoined, the vice-rector pacing up and down the refectory, and seeing that every thing went on orderly. Meantime one of the collegians, taken by turns from among the elder students, read from a pulpit some chapters of the 'History of the Church,' translated from the great work, the *Annales Ecclesiastici*, of Cardinal Baronius.

This may be said to have been the only exercise in Italian; a strange neglect of the native tongue, but one not uncommon in the old system of education of most continental countries. The boys on entering college were, of course, expected not to be entirely uninstructed in their own language, but, from that moment their proficiency in it was stopped for the sake of the Latin; and any acquaintance with the modern literature of their country, and with the elegancies of their living language, was deferred till after they left college. Italian books of poetry were not even allowed to be kept, especially by the junior boys, probably for two reasons, that their Latin studies might not be neglected, and also that their minds might not be tainted by the licentiousness which stains the pages of most Italian poets.

On Sundays and other holidays we were allowed two or three hours for walking out; and the places of resort were generally chosen from among some of the fine villas and pleasure-grounds of the Roman nobility. The choice of the place was decided by votes, submitted to the approbation of the vice-rector. The prefect, however, never lost sight of us. At other times the Forum, the Colosseum, the ruined Thermæ, St. Peter's Church, or some of the other Basilicæ, the Pyramid of Cestius, the Cœlian, Palatine or Aventine Mounts, were the limits of our peregrinations. It was hardly possible that such scenes, closely connected as they were with the elements of our education and studies, should not make more or less impression on our youthful minds,—everything around us was either classic or religious. And yet Roman history, properly speaking, did not form part of our course of studies; another strange omission in a Roman college! But there were few students who did not know the principal events recorded in that wonderful narrative, allusions to which we found continually in the Latin authors which we read.

The common punishment for slight offences was confinement to one's room. No flogging was in use. When the misconduct was of a graver nature it was reported to the vice-rector, who stopped the offender's wine, or fruit, or even meat. In some cases the culprit was made to kneel down in the

middle of the refectory during dinner. But admonition, impressive reasoning, appealing to the dictates of religion and of conscience, and often also to the feelings and self-love of the individual, were more generally resorted to, and not without effect. This task devolved chiefly upon the vice-rector, who was generally a person well acquainted with the disposition of youth. He was assisted in it by the chaplain or confessor, who once a week, or a fortnight at least, listened to the unburthening of the consciences of his young flock. The latter was a most kind, single-hearted priest, most zealous in the discharge of his duties. The rector seldom interfered, except in rare cases of irreligion, immorality, or open and determined insubordination, when the parents of the culprit were sent for, and expulsion from College ensued. Solitary confinement on bread and water was held out *in terrorem*, but an instance of it rarely occurred.

Religious instruction was limited to the practices I have mentioned, with the addition of high mass, which was performed in the church of St. Ignatius on great festivals, when vespers were chanted, and the collegians officiated in the choir; in the afternoon a sermon was preached, in which the Scriptures were explained, and the principal doctrines of morality inculcated. There were no mental restrictions, no controversial or fanatical spirit, no habits of gloomy mortification, no casuistical sophistry, none of those tortuous ethics which are attributed to the jesuits. If such had ever prevailed in the system of instruction afforded by that order, they were swept away at their expulsion; and the secular clergy, who had succeeded the fathers in the direction of education, taught nothing but what was openly taught from every pulpit, by every rector or curate, in every parish or church of Rome. The doctrines inculcated were, of course, Catholic and Roman; the infallibility of the church was asserted as well as the spiritual supremacy of the Pope over all the Catholic world, as a matter of delegated right. With regard to the withholding of the Scriptures, we—not the students of theology, to whom the study of the Scriptures formed part of their regular course—had no bibles in our possession, though Latin gospels were in the hands of several; but we read portions of the Scriptures in the lessons and offices every day, and had them explained on Sundays; and we were therefore acquainted with the principal parts of the Old Testament, and with the history of our Saviour's mission. The latter was frequently adverted to in public as well as in private, as the great model of our conduct. Concerning Italian Bibles, though they might not be seen at college, that of the Archbishop Martini was common

in private houses and booksellers' shops, and there appeared to be no difficulty in procuring the work, the publication of which had been fully sanctioned by the Pope. Besides, it must be observed, that the Latin Bible is as intelligible to all educated Italians, and especially Romans and Tuscans, as if it were written in the *vulgar* idiom, and that every one who is not absolutely illiterate, knows enough of Latin to understand the meaning of the prayers and lessons in the office or breviary.

At the end of the academical year the boarders or collegians removed for the October holidays, to a country residence belonging to the establishment near the town of Tivoli; this was truly a delightful period. School books were left behind, all tasks dispensed with, and except our religious exercises, both mornings and afternoons were employed in recreation, plays, and excursions about the romantic Appennines, which surround the ancient city of Tibur. The great cascade, the cascatelle, the remains of Hadrian's villa, and the villa d'Este, were visited in turns. It was the season of vintage, when gaiety smiles and frolic dances over the vineclad hills of Italy; it was a season of universal rejoicing. Tivoli is situated at the entrance of the highlands of the Appennines, which rise higher and higher towards the frontiers of the neighbouring kingdom of Naples. In that direction the scenery is strikingly wild and impressive.

With the last day of October ended the *villeggiatura*, and we returned to Rome for the solemn festival of All Saints, after which the schools opened and we resumed our duties.

Such was our life at college, and such the method of instruction. Of the good points and the faults of the system, the reader will judge. The faults may be said to have been chiefly of omission. Geography, modern languages, mechanics, drawing, history, political philosophy, did not form part of the college studies. Of music, only the rudiments of the *canto fermo*, or Gregorian chant for the service of the church, were taught. Four years were spent in the study of Latin grammar, rhetoric, and the rudiments of Greek: this period may perhaps not appear too long to those who think that the advantages of classical instruction are not confined to the barren acquisition of one or two dead languages, but that the study of classic models gives a tone to the mind that is felt throughout life, and that their influence powerfully contributes to the forming of that character emphatically expressed in English by the word, "gentleman." But the same object might be attained, and more things be learned at the same time.

The method in the grammar schools was too mechanical, and destitute of analysis. In the classes of humanities and rhetoric, a more intelligent spirit prevailed. It is an attested fact, that good Latinists came out of the Roman college every year. The course of philosophy was confined and elementary, but then, as it has been remarked, the University of La Sapienza was open to those who wished to continue their studies. A young man who came out of college at eighteen, (and few remained beyond that age, except the students of divinity,) had still time before him sufficient to acquire what had been omitted in the preparatory education. Those boarders who took orders were generally provided with a living, some remained in the college as masters, and others became attached to some of the numerous institutions which exist in Rome.

The number of other colleges at Rome was very great, most of them being foundations for the education of boarders of various descriptions and countries; but as few of them afforded instruction at home, their inmates were generally sent to attend the classes in the Roman college. One college, *Il Clementino*, was solely reserved for young men of patrician families, whose education was more expensive, and who had private masters at home. During the occupation by the French, several foundations were suppressed, and their revenues taken from them. The celebrated college *De Propagandâ Fide* was however preserved. With regard to the Roman college, since the re-establishment of the Jesuits at Rome, in 1814, I believe that both the schools and the seminary have been placed again under the direction of that order.

MEDICAL SCHOOL OF PARIS.

There is no medical school in Europe to which, for many years past, so many British students have resorted, for the especial purpose of availing themselves of its advantages as a school, as that of Paris. Of those students from our own country who are seen in every French professor's lecture-room, and in the wards of every Parisian hospital, very few have the smallest expectation of French academical honours: they are attracted thither simply by the hope of acquiring a better knowledge of their profession than can be obtained at home.

Those who are conversant with medical literature will see abundant explanation of this custom of studying in the schools of the French pathologists, in the continual reference

made, in all our English medical works, to French authorities. Whilst the English have hardly extended their labours beyond special or descriptive anatomy, surgery, and the administration of medicines, they have left to foreigners, almost undisputed, the whole domain of physiology, with the exception of the nervous system; and absolutely the whole field of general anatomy and of pathology. Perhaps purchasing their skill in the *science* of medicine by some sacrifice of ability in the department of practice, the French have yet been almost the only contributors of *new* medicines to the old stock, during the last thirty years; and even in surgical skill they dispute the palm with the ablest surgeons of England. It is to these causes, rather than to any thing very widely differing from the plan of medical education followed in England, that the superior celebrity of the Parisian school of medicine is to be attributed. At the same time, the regulations enforced with respect to medical education are in most respects judicious.

All French students who aspire to the *Doctorate*, either in medicine or surgery, are obliged to prepare for their professional studies by a preliminary course of literature and science; and to undergo an examination in some of the following subjects, on all of which the candidate is expected to be prepared: —Greek literature, Latin eloquence, Latin poetry, French eloquence, French poetry, philosophy, the history of philosophy, ancient and modern history, ancient and modern geography; and also, mathematics, certain parts of physics (as acoustics, electricity, optics), chemistry, zoology, botany, and mineralogy.

The candidate must also have devoted four years to professional study: if he has studied at the provincial schools, and not in Paris, he must have been engaged in professional studies *six* years.

The studies of each year are thus divided:—

First Year,	*Winter*,	Anatomy, Physiology, Chemistry.
	Summer,	Hygiène, External Pathology, Botany.
Second Year,	*Winter*,	Anatomy, Physiology, Operations.
	Summer,	Hygiène, Pharmacy, Surgical Pathology, Clinical Surgery,

Third Year,	*Winter,*	Materia Medica,
		Clinical Medicine.
	Summer,	Operations,
		Clinical Surgery,
		Pathology (Theory of Medicine).
Fourth Year,	*Winter,*	Clinical Medicine,
		History of Medicine.
	Summer,	Pathology,
		Legal Medicine,
		Clinical Study in an Hospital, containing selected cases.—(*Clinique de perfectionnement.*)
		Midwifery.

A certain number of the students (one hundred and twenty in each year), selected by public examination, have the additional advantage of practical instruction in dissection, and in surgical operations, in chemical, pharmaceutical, and physiological experiments, in medical physics, in the application of bandages and dressings, and in midwifery. The practical students are encouraged to diligence by prizes. The offices of assistant in the anatomical schools, and in the hospitals, are also held out as rewards to distinguished students, and are much sought after by them. One hundred and fifty external assistants are chosen every year from among them, for the different hospitals; and several internal assistants, who are lodged and boarded in the hospital, receive a small salary, and are promoted, by seniority, from one hospital to another.

The extensive library of the school of medicine is open to the students three days in the week; and tickets of admission are obtained, on application, to the museum of anatomy; as well as to the valuable collections at the Garden of Plants.

The period of medical study enforced by these regulations is attended with many advantages. Whilst the English student, preparing for general practice, crowds all the parts of his education into a space not exceeding two years, those of the same rank in France are obliged to spend at least double that time in study. Both teachers and students feel the benefit of this. Every thing is taken in order, and every thing is completely taught. The elementary parts of professional knowledge are so perfectly developed, and the student acquires such an acquaintance with general and practical anatomy, with chemistry, and with physiology, as to proceed in the third and fourth year to the observation of disease, to the pursuit of morbid anatomy, and even to

the experimental parts of physiology, well prepared to become master of all these sciences, and to improve them. The consequence is, that during the last ten years, such valuable works on the pathology of the brain, of the lungs, of the intestines, and of the skin, have been published by French writers, at the conclusion of their studies, or, at least, by very young men, as are without parallel among contemporary works on any part of medical science among ourselves.

The regulations of the anatomical department are such as to ensure a constant and almost unlimited supply of subjects for dissection. There is a chief of the anatomical department, who directs the labours of numerous prosectors and assistants in such a way as he deems most advantageous for the interests of anatomical science: he instructs them in the art of making anatomical preparations, and regulates the distribution of subjects for dissection among the students, whose dissections are practised with the aid, or under the direction, of the prosectors, who also repeat the demonstrative part of the recent lectures of the anatomist, or of the operative surgeon.

During the winter session, frequent opportunities are offered for attendance on short courses of lectures by eminent private lecturers, wherein most of those experiments are exhibited on which the principal truths of physiological science rest.

The hospital arrangements are singularly adapted to the purposes of study. The hospitals are very numerous, and of all sizes. In some, the student will find cases of all the diseases of children; in some, all the diseases of women; in some, every affection of the skin may be inspected at all times; and there are large hospitals for the insane, from which the student is not, as in this country, rigorously excluded. A large proportion of the cases in all the hospitals become the subjects of clinical teaching; that is, the pupils are carefully informed concerning the previous history and progress of the malady, its actual state, and the intention with which medicines are prescribed. Observations are made from day to day, in some of the hospitals at the bed-side, which keep the student's attention awake to what is done, and in case of death, the body is almost invariably inspected, and the morbid appearances are made the subject of a short lecture, or exhibited at the regular clinical lecture given by the physician or surgeon. The plan of clinical instruction is nearly the same in every hospital, and is pursued with a zeal and perseverance from which none but the most negligent can fail to profit. By a judicious division of his time, an active student may, consequently, in

the course of twelve months, become more familiar with hospital practice in Paris, may acquire a larger and more accurate knowledge of all the forms of disease, and a greater familiarity with pathological anatomy, than he can possibly obtain in London in more than double that period. There is also great facility of access to libraries, to museums, and to the meetings of scientific bodies, which afford relaxations both of a pleasing and of an instructive nature, not commonly or so fully enjoyed by students in other capitals.

It ought, however, to be observed, that this abundance of the means of scientific improvement appears to have drawn away the attention of many practitioners of the French school from the true end of medical study, namely, from the treatment and cure of disease. The activity with which attempts are made to check the march of maladies is certainly disproportionate to the zeal with which the effects of maladies are inquired into; and there is sometimes room for suspicion that a love of morbid anatomy lessens a proper anxiety to preserve life. No pains are spared to ascertain the nature of disease, and the greatest industry is exhibited in the comparison of what was conjectured with what can be demonstrated after death. But much scepticism seems to prevail concerning the power of medicines, and much consequent indolence in their application in cases in which those accustomed to the energetic practice of English physicians are often of opinion, that death might be prevented, or much retarded.

Many of the French students, resorting to Paris from the distant provinces, aspire only to the inferior rank of *Officier de Santé*, and are unprepared, by a good education, to profit by the scientific opportunities of the place; they are therefore often led away from the search after important truths to follow the refinements of teachers, whose most obvious defect is frequently a want of power to draw accurate general conclusions from what they so diligently observe and so admirably describe. Thus in no school are trifling minutiæ of observation made of such prominent importance, or ill-founded theories of disease more prevalent.

Such, in brief, is, we believe, a just description of the present character of the French school. If we have not dilated upon the advantages which we freely acknowledge to exist, neither have we dwelt with acrimony on the few faults with which they are intermingled. There can certainly be no question that among other debts which science owes to French industry and talent, that of very extensive improvement in the science of medicine is most justly due to them; and that many of the regulations of their schools might be adopted with benefit in our own.

DISSENTING ACADEMIES.

I.—*Education among the Early Dissenters.*

Without discussing the subject of non-conformity, as it originated in the seventeenth century, or as it exists in various modifications in the present day, the purpose we have in view in this Journal will be best accomplished, by giving a brief history of the rise and early condition of education among those who are usually classed under the general denomination of Dissenters.

Many of those who relinquished their situations in the church in consequence of the celebrated 'Act of Uniformity,' were men of acknowledged learning, as well as eminent worth; and being ejected from their livings by the operation of that enactment, they deemed it necessary to adopt immediate measures for the support of themselves and their families. It occurred to some of them, that by opening schools for the instruction of youth, or academies for the more especial purposes of theology, they might make their literary attainments available for their own benefit, and at the same time render an important service to society. 'The edict,' says Dr. Toulmin,* 'that deprived them of their livings, could not despoil them of their erudition. The literary taste which they had formed in the seats of the muses, and the treasures of knowledge which they had laid up, qualified them, in an eminent degree, when driven from their pulpits, to undertake the instruction of youth. The straitened circumstances of many obliged them, when they had lost the revenues of their vicarages and rectories, to seek some compensation by applying their talents and learning to the offices of education. Some became tutors in private families, some opened schools, and some established academies, in which they read lectures on different branches of Science and Theology.'

It is proper to remark, that the term *Academy*, till within the last few years, in which it has frequently been exchanged for *College*, was formerly used among Dissenters, almost exclusively, to denote a place of education for young men devoted to the Christian ministry. While general literature was not entirely neglected, and classical learning was more especially cultivated, the chief object of such institutions has always been to communicate theological knowledge. Academies were regarded as the seminaries peculiarly appropriated to those who were solicitous to prepare themselves for the labours of the pulpit; and to supply the means of such pre-

* Historical View of the State of the Protestant Dissenters in England, &c. chap. iii.

paration has uniformly been recognized as an essential part of their constitution.

It is obvious that the rising generation of the earliest Dissenters possessed, in a great degree, the advantages of a university education, inasmuch as those who undertook their superintendence, whether in private families or in public seminaries, had received their own intellectual cultivation in those seats of learning. But the wishes, both of parents and tutors, were very much frustrated by the spirit of intolerance. Harassing processes in the spiritual court were undertaken against those who presided over these institutions, and some of the most eminent instructors of youth were compelled to discontinue their labours. The ostensible ground of these proceedings was the oath taken at the university on occasion of obtaining degrees, which was interpreted to mean, that they bound themselves not to undertake schools or private academies; but the real source of the interdiction was, hostility to their non-conforming principles. They defended themselves, however, against the allegations of their enemies with great resolution and unanswerable arguments,* so that some of the most candid of their episcopal opponents concurred in the more liberal interpretation of the oaths.

One of the earliest and most excellent of the non-conformist academics was that which was conducted by Mr. WOODHOUSE, in the manor-house at Sheriffhales, near Shiffnal, in Shropshire, and obtained considerable celebrity in the reign of Charles the Second. Some of the most distinguished families of the county sent their sons thither for education, many of whom afterwards appeared in the world as men of rank or political importance. Mr. Woodhouse was not, like many others of the dissidents, in necessitous circumstances, but he seems to have adopted this course of life, partly to gratify his own literary taste and to indulge his studious habits, and partly to render a service to that community with whom he stood in immediate connexion. As a tutor he is reported to have displayed great ability and diligence; assiduously and effectively directing the theological pursuits of his students, cultivating piety as well as imparting learning, and securing a perfect influence over his pupils by the happy combination of unrelaxing discipline, with courteous and conciliating manners. The plan of the institution comprised the following method; from which we may perceive the advantages the institution derived from the preceptor himself having enjoyed early and free access to the

* The history of these circumstances, and the arguments, are given in Calamy's Continuation, vol. i.

fountains of national instruction. Lectures were read by him in Logic, Anatomy, and Mathematics; these were followed by others in Natural Philosophy, Ethics, and Rhetoric. The Greek and Hebrew languages were also assiduously cultivated. While theological reading was particularly marked out for Divinity students, those who were designed for the law had an appropriate lecture once a week. The authors used as text books were strictly explained, and at least the subject matter impressed on the memory. An account of the preceding lecture was required before another was read, and on Saturday a review was given of the five lectures of the week. Every author was read three times, and the students exercised each other by questions and problems on the most difficult points. On one day of the week Latin, Greek and Hebrew nouns and verbs were declined in the lecture room; logical disputations were held on a Friday afternoon; English composition was taught in the form of letters and speeches, and the theological pupils were required to analyse verses of the Bible, to compose sketches of sermons and schemes of prayer and devotional specimens, according to the method of Bishop Wilkins. In addition to their general course of study, all the classes were exercised at times in land surveying, dialling, making almanacks, and dissecting animals. It is unnecessary to give a minute account of the books that were employed, many of which, in the subsequent progress of knowledge, passed into disuse. Among the most distinguished persons who received their education in this seminary were the two sons of Sir Edward Harley, of whom Robert, afterwards Earl of Oxford, became both a celebrated statesman and promoter of learning. Lord Bolingbroke, so well known as a writer and as a politician, was one of the pupils. We find also the names of several eminent divines.

The seminary of Sheriffhales was continued for some time by Mr. John Southwell, nephew of Mr. Richard Southwell, who was ejected from Baswick, in Staffordshire. The names of two of his pupils survive,—Mr. Thomas Leavesly and Dr. William Harris, of whom the latter is the most distinguished. Dr. Harris was minister of the Dissenting congregation in Crutched-Friars during the long period of forty-two years. He was considered to be the best English scholar among the dissenters, and his compositions the most finished that proceeded from their body. He was, indeed, highly celebrated both as a preacher and a writer. In the latter character he took a prominent part in the deistical controversy with Woolston and Collins.

Another of the institutions, which may be regarded as the offspring of non-conformity, was the academy of Mr. MATTHEW WARREN, a gentleman of fortune, who was ejected from the chapelry of Downhead, in Somersetshire. After suffering numerous annoyances during the reigns of Charles II. and James II. he was for many years at the head of a prosperous academy at Taunton. He is said to have possessed, in an eminent degree, the art of explaining subjects in a clear and convincing manner to persons of the meanest capacity; but having been educated in the old school of logic and philosophy, he contented himself with lecturing on such text books as Burgersdicius and Eustachius. He encouraged his pupils, however, in the private study of Locke, Le Clerc, and others. He was ranked among the moderate divines of the day, being neither rigid in his opinions, nor unwilling to yield to argument. He encouraged, to the utmost of his power, the free and critical study of the Scriptures. He died in the year 1706.

The most distinguished of Mr. Warren's pupils was Mr. Henry Grove, who was the son of parents and the descendant of ancestors on both sides remarkable for their attachment to religious liberty, and the rights of conscience. His precocity of talent introduced him into this seminary at the age of fourteen; whence he removed to London to prosecute his studies under Mr. Rowe. In the year 1706, he succeeded his tutor in the academy at Taunton, having already acquired considerable reputation as a preacher. In this place he continued his ministrations for eighteen years, among two small congregations, whose united efforts for his support did not produce more than twenty pounds per annum. He is well known as a writer on many subjects in divinity, and as a contributor of several numbers in the Spectator. About the year 1718, he added to his labours as tutor in moral philosophy, those of instruction in mathematics and natural philosophy. In 1725, he became divinity tutor, and discharged that important office with exemplary zeal and fidelity. In him extensive learning, sound judgment, and a vigorous imagination were remarkably united; so that his death, which occurred in 1737, was lamented as a great public loss.

The third institution of celebrity among the earliest nonconformists, was that of Mr. CHARLES MORTON. This eminent man was descended from an ancient family at Morton, in Nottinghamshire, formerly the seat of J. Morton Secretary to Edward III. He received his education at Wadham College, Oxford; and was ejected from the rectory

of Blisland, in Cornwall. He then removed to a small tenement, his own property, in the parish of St. Ives, where he resided till the fire of London. The earnest solicitations of many friends, who were confident in his peculiar qualifications as an instructor of youth, induced him to open an academy at Newington Green, where he displayed eminent capacity, and enjoyed great success. Mr. Morton drew up systems of the different arts and sciences for the use of his pupils, which they were required to copy, and which he elucidated and enlarged in lectures. One of these, entitled Eutaxia, on the principles of government and public policy, has been esteemed a work of great merit. He also prepared a compendium of logic, which was the text-book, in the College of Harvard, after he became vice-president of that American university. It was in the year 1685, that he emigrated to New England, in consequence of processes in the ecclesiastical courts with which he was harassed. Though not absolutely compelled to this measure, yet his apprehensions respecting the state of the nation were such, that he went abroad to escape anticipated evils. In America he was chosen pastor of a church in Charlestown, opposite to Boston, and vice-president of Harvard College. He died in April, 1697, at the advanced age of seventy-nine.

A fourth non-conformist institution was undertaken by Mr. Richard Frankland. He was born in 1630; and after having received classical instruction at a celebrated school at Rathmill, in the west Riding of Yorkshire, he matriculated at Christ-church, Cambridge, in 1647. From the university, where he took the degree of Master of Arts, he went to reside for a short time at Hexham; and preached successively at Haughton-le-Spring, Lancaster, and Bishop's Auckland. He was presented to the valuable living of Auckland, St. Andrew's, by Sir Arthur Haslerig. When Cromwell erected a college for academical instruction at Durham, in 1657, Mr. Frankland was chosen tutor—an office which perished with the institution itself at the restoration; afterwards, when driven from his living by the act of uniformity, he retired to his own estate at Rathmill, where he was persuaded to open a private academy. In the course of twenty-nine years he imparted the benefits of a liberal education to three hundred youths: during this period, indeed, circumstances induced, or compelled him to a frequent change of residence; but he never suspended his scholastic labours. In 1674, an invitation to become minister of a congregation, drew him to Natland, near Kendal, in Westmoreland; but he was forced by the harassing operation of

the Oxford, or Five Mile Act*, to remove, and lived successively at Dawsonfold, in the same county; Harthurrow, in Lancashire; Calton in Craven, in Yorkshire; Attercliffe, near Sheffield; and, finally, again at Rathmill. He was not only distinguished in public life as a divine, and in private life as a man of great modesty and virtuous conduct, but he had also the reputation of being an able mathematician.

Among the numerous pupils of this seminary, we may mention one or two, whose lives were more particularly connected with the history of the times in which they lived. Of this class was Mr. John Nesbitt, a native of Northumberland; born October 1661. His public avowal of attachment to the Protestant religion, in the presence of the Duke of York, afterwards James II., exposed him to severe trials. Scarcely had he commenced his studies in the university of Edinburgh, when he was compelled to retire into a foreign land. But on his passage to Holland he was seized and committed to the Marshalsea prison, where he dragged out a wretched existence in irons for four months; yet neither sufferings, nor solicitations on the part of the king, could induce him to betray others, or degrade himself. He died in the sixty-seventh year of his age, having been pastor of the congregation in Hare-court, Aldersgate-street, thirty-three years. Mr. James Woods, born in 1691, was the son of an ejected minister of the same name, and settled with a congregation of dissenters in Lancashire, with which he continued till his death, in February, 1759. At the time of the rebellion, in 1715, he headed a body composed of the most robust and brave men of his congregation, armed with agricultural implements; and marching them towards Preston, secured possession of Walton-bridge, by the order of General Wills. This conduct was acknowledged by George I., and the reverend patriot was ever after called General Woods. Mr. David Some deserves to be mentioned, on account of his connexion with the celebrated Dr. Doddridge, as well as his own eminent merit. He was settled at Market Harborough, and undertook the superintendence of a small church at Kibworth, in conjunction with his own, and, in association with Doddridge. He was a person of remarkable acuteness

* The Oxford, or Five Mile Act, was passed, in 1665, in the reign of Charles II. It imposed an oath on all non-conformists, that no alteration should be attempted in church or state; and provided, that all ministers who did not take the oath should not come within five miles (except in crossing the road) of any borough, city, or corporate town; nor within five miles of any parish, town, or place, wherein they have, since the act of oblivion, been parson, vicar, or lecturer, under a penalty of forty pounds, and being incapable of teaching any school, or taking any boarders or tablers to be taught or instructed.

of judgment, and is known as chiefly active in overruling an attempt which was made in 1723, to introduce subscription to articles of faith, as a test of orthodoxy, when the subject was much agitated in London.

An academy of note was established by Mr. Doolittle, of Pembroke Hall, Cambridge, who was ejected from the rectory of St. Alphage, London Wall. He began with a school in Moorfields; but, upon the breaking out of the Plague, removed to Woodford Bridge, on Epping Forest. On a license granted by Charles II., in 1672, he removed to Islington, where he formed an academy to educate young men for the ministry, in which he was assisted by Mr. Vincent, of Christ Church, Oxford, ejected from St. Mary Magdalen, Milk-street, London. He was, besides, pastor of a numerous congregation in Monkwell-street. Upon the passing of the Oxford Act, he removed to Wimbledon, where his instructions were continued, but in a more private manner. Several persons of eminence were among his pupils, as Mr. Henry Chandler, father of the celebrated Dr. Samuel Chandler; Mr. Thomas Emlyn, of whom a large account may be found in books of general biography; Dr. Thomas Ridgley, who became an eminent tutor, in conjunction with Mr. Eames, in an academy in London, founded by the Independents; and Mr. Edmund Calamy, 'celebrated for the respectability of his character, the weight of his influence, his controversy with Bishop Hoadly on the principles of non-conformity, and numerous publications, particularly the Abridgment of Mr. Baxter's Life, and a continuation.' (Toulmin's Hist. View. App.)

Mr. John Shuttlewood, A. B., of Christ College, Cambridge, who was ejected from Raunston and Hoose, kept a seminary at Sulby, and at Little Creaton, in Northamptonshire. He was distinguished as a preacher, as well as a tutor, and is considered as the founder of the dissenting body in that part of the kingdom. He was a great sufferer for his non-conformity, both in person and property. Several of his pupils became respectable for their theological and literary attainments, though few of them were very eminent.

Mr. Samuel Cradock, B. D., fellow of Emanuel College, Cambridge, was ejected from the rectory of North Cadbury, Somersetshire. His ministerial labours were gratuitously bestowed on the neighbourhood in which he resided, Wickham-Brook, in Suffolk. He was successful in his academical instructions, which comprised Logic, Natural and Moral Philosophy, and Metaphysics, as well as Divinity. He adopted the method, which appears to have

been general in academies at that period, and has been very frequent since, of requiring his students to copy his Lectures. Dr. Edmund Calamy was one of them, and has recorded his approbation of this method, which others have deemed a useless drudgery. On the whole, perhaps, this method may be regarded as advantageous to the scholar, especially in the study of Theology. If the Lectures of the tutor have been judiciously prepared, constituting rather an outline of the subject, than an elaborate disquisition upon it, and pointing to the sources of further information, it appears to us that the pupil may gain substantial assistance, and of the most valuable kind, by being permitted to transcribe the well digested preparations of his teacher. Besides Dr. Calamy, several excellent divines were educated in this institution, and some gentlemen of rank and influence, as Sir Francis Brickley, of Attleborough, Norfolk; Charles Lord Fitzwilliam, of Moulsham-hall, Essex; and Timothy Goodwin, who was an excellent Greek scholar; and who, though originally educated with a view to the medical profession, afterwards devoted himself to theology, took orders in the church, accompanied Lord Shrewsbury, lord lieutenant of Ireland, as chaplain; was first bishop of Kilmore and Ardagh, and, finally, archbishop of Cashel.

Besides those who have been enumerated, many others devoted themselves to the education of youth for the Christian ministry, whose names have been preserved with honour. We may subjoin a few. Mr. Nathaniel Taylor pastor of the church formerly at Salters' Hall, and, on account of his wit and vigour of expression, called, by Dr. Doddridge, the dissenting South; Mr. Philip Henry; Dr. Theophilus Gale, who left all his real and personal estate for the education of poor scholars; Dr. Obadiah Grew; Mr. Ralph Button, B. D., canon of Christ Church, Oxford, and orator of the University, who lost both his preferments at the Restoration; in early life he was an eminent tutor in Exeter College; at the breaking out of the civil wars he had been elected professor of Geometry in Gresham College: he died in 1680. The names of Benjamin Robinson, Henry Hickman, B. D., and Thomas Cotton, M. A., are worthy of remembrance, each, in his day, having accomplished much, both in public and private tuition, and having acquired considerable celebrity.

The preceding enumeration, which comprehends extinct academies, will show that the early non-conformists, and their immediate successors, conferred a great benefit on the body to which they attached themselves, by cherishing the

spirit, and diffusing the love of learning among their contemporaries. The result was, that the separatists from the Church of England sent forth, from the midst of them, statesmen, physicians, and divines of eminence. Their newly constituted church, especially, was enlightened by literature, supported by wisdom, and adorned with religion. The effect, however, of excluding their successors from the places of public instruction, was, at length, detrimental to their learning, and injuriously affected their opinions. A prejudice against academical institutions crept in; and, notwithstanding the partial provisions (for they are only partial and very limited) which have been made for the instruction of youth, particularly of the class devoted to the Christian ministry, this prejudice, amounting even, in some cases, to direct hostility, has ever since existed, to a considerable extent, among some denominations of the non-conformists, or dissenters. But another and a better feeling has, of late, prevailed; and the progress of mental cultivation, and the diffusion of general knowledge, bid fair to exterminate, at no distant period, all remaining hostility both of sentiment and conduct.

In another Number we shall give an account of more recently established academies.

POLYTECHNIC SCHOOL OF PARIS*.

OUR object in this article is, by combining and arranging the information contained in the works mentioned in the note, to give an account of the history, objects, and courses of study of the French Polytechnic School. In reading the first on the list, it is necessary to consider that it was written under the late government by an officer of the institution; we may, therefore, without prejudice to the writer, allow ourselves to suppose that it cannot be altogether what he would have written had his work been commenced since the new era, and we must receive the whole as a history of the Polytechnic School as tolerated by Charles X. and the government in the year 1828.

* Histoire de l'Ecole Polytechnique, par A. Fourcy, Bibliothécaire et Membre du Conseil d'Instruction de cette Ecole, &c. Paris, 1828.

Notice sur la Création de l'Ecole Polytechnique, par M. Hachette.

Prospectus de l'Ecole Royale Polytechnique;—Ministère de l'Interieur.

Programmes de l'Enseignement de l'Ecole Royale Polytechnique pour l'année scolaire, 1829—1830.

The second on the list is a very short notice of the different organizations of the School by M. Hachette, who, to his many titles of real distinction, adds that of one of the original Professors of the Institution in question. The other two are official documents, whose titles explain themselves.

The object of the Polytechnic School is, to provide a continual supply of men capable of directing all public undertakings, whether civil or military, for the management of which science is necessary. Monge, in 1791, proposed a plan for the formation of a public school of science, into which should be admitted only the most distinguished pupils of the ordinary seminaries. Talleyrand and Condorcet, about the same time, proposed to the government the education of general engineers on a large scale; but the troubles of 1793, while they deferred the consideration of the question, rendered some measures more than ever necessary, by the stoppage of all the existing opportunities of acquiring scientific knowledge. Among those which circumstances had rendered inefficient was the School of Artillery, which had been re-established in 1790 by the National Assembly, and placed at Chalons-sur-Marne, avowedly because that place contained neither artillery, garrison, nor fortification! The School of Military Engineers at Mézières, where Monge first taught the descriptive geometry which he had invented, was removed to Metz, in 1794. It is then represented by the Committee of Public Safety as completely disorganized, and the institution as totally destroyed. In fact, the number of military engineers was so little adequate to the increasing wants of the war, that the Convention found it necessary to supply the army from the School for Roads and Bridges (Ecole des Ponts et Chaussées). This latter school, founded in 1747, differed materially from the rest in its constitution. It had no professors belonging to it: its pupils were sent out of doors to hear the lectures of the different teachers; while at home the better informed students instructed the rest. The sudden call for all who were any ways fit for military duty to join the army put of course a complete stop to the operations of this school. That of Naval Engineers had been shut up on the suppression of the Academy of Sciences. There was nominally an 'Ecole des Mines,' but all practical knowledge was only to be obtained abroad. There was a corps of 'Ingénieurs Géographes,' but no place was appropriated for their instruction. Great pains were taken in this department with the pupils of the Military School of Mézières; they were, however, forbidden by ordonnance from applying the knowledge thus gained to their own branch.

Such was the state of these most essential departments of public instruction at the beginning of 1794. Lamblardie, led by the stoppage of the Ecole des Ponts et Chaussées, of which he was director, to turn his attention to the means of preparing new materials in his department, conceived the idea of forming a large institution where engineers of all descriptions might receive the scientific knowledge which is the basis of their respective arts. He communicated this notion to Monge, who, it appears, had already entertained the same, and who entered into his views with ardour, and communicated them to the Assembly of Savans, who, as is well known, occupied themselves with endeavouring to forward by new inventions the backward state of the military preparations. On his representation it also met with a favourable reception from the Committee of Public Safety. In this body were Carnot and Prieur-Duvernois, or Prieur de la Côte d'Or, both formerly pupils of Monge, who were pleased with the idea, and exerted themselves to put it in execution.

It happened well for the undertaking that the Convention had just appointed a 'Commission des Travaux Publics,' intended to overlook the different public undertakings, which had hitherto been divided among the ministers of the interior, marine affairs, and war. This committee appropriated the buildings attached to the Palais Bourbon, in which it held its meetings, to the new establishment. The collection of apparatus was immediately commenced, and Fourcroy was employed to draw up a report on the nature of the intended plan, to be presented to the assembly with the projet de loi for its execution. This was just after the fall of Robespierre. The Convention was not disposed to receive anything unaccompanied by abuse of the system which had just terminated, and had its thoughts full of the warlike preparations which were at that period more than ever necessary. To gain a hearing, therefore, Fourcroy charged the late government with a conspiracy against education, and a determination to destroy all arts, sciences, and learning. He asserted that it was their dearest wish to strip France of her generals, engineers, and sailors, to deprive her forts and harbours of all means of defence, and render her an easy prey to her enemies. He then shewed the utility of some such institution as a nursery of the art of war, which then so completely occupied the government and people, that even in representing to them the necessity of promoting agriculture, it was as a means of *victualling the army by sea and land*. The report then proceeded with the method of instruction proposed, and declared it as the object of the new establishment to form

engineers of all descriptions, and to re-establish the teaching of the exact sciences, which the revolution had suspended. It was proposed, that the students should be employed three years, those of each year forming a distinct class. But as the public wants were pressing, it was recommended to take the best qualified students from all quarters, and by means of short courses, to bring as many of them as it was possible to such a state of information as would enable the three classes to commence at once. This, in the days of equality, it was thought necessary to excuse, on the ground of imperious necessity, otherwise it might have been required that the students should have been levied in the same manner as the army, by equal distribution of their number among the different departments. It was also considered necessary to grant a salary to all the students for their maintenance; and it was recommended that they should be boarded in small numbers with private citizens, instead of being all collected in one building.

This report was received without opposition Sept. 28, 1794, and was followed by a law, fixing the opening of the school on the 30th of November. Lamblardie, who originated the idea, was appointed director. The qualifications required in candidates for admission were previous good conduct, attachment to republican principles, a knowledge of the elements of arithmetic, algebra, and geometry; the candidate was required to be between 16 and 18 years of age. Twenty-two towns were named in which the examinations were to be held, and to each of which an examiner was appointed. These were required to attend, not to the information exhibited by the candidates, but to their intelligence; and this, at a time when the Republic, hard pressed on every side, might have been supposed willing to prefer the slightest degree of practical knowledge to any talent whatever. Three hundred and forty-nine students of all ages, from twelve to twenty-five years, were admitted; and by the end of November the plans of instruction, &c. were arranged. Of these we proceed to give a slight account. In mathematics the students were supposed to know already the elements of geometry and algebra. Their attention was therefore turned immediately to analysis and descriptive geometry. The former was principally confined to the elements of, 1. Geometry of three dimensions. 2. Mechanics and hydrostatics. 3. The effects of machinery. The latter was applied to the arts of design, architecture, and fortification; the first containing the cutting and arrangement of stone and wood in building; the projection of shadows; perspective, both with regard to the apparent form

and tints of objects; the formation of maps and plans, and the operations of surveying, which it was intended the students should be sent into the country to practise; also the drawing of machinery, both simple and compound. Under the head of architecture we find the construction of roads, bridges, canals, and ports; the plans of mining operations, the ordinary processes of building, *and the decorations required for public festivals.* In fortification the general principles of the method were to be taught, in addition to the construction of works, and the operations of attack and defence. In physics the course was divided into, 1. General physics, containing what is usually known under that name, and the general laws of chemistry. 2. Chemistry, containing all particular phenomena, with their application to the useful arts. The art of drawing was also taught. The time was divided in the following way. Out of 100 parts, 50 were given to descriptive geometry and its applications; 25 to physics, chemistry, and their applications; 8 to mathematical analysis and its applications; and 17 to drawing, &c.

Without going further into detail, we may notice one or two remarkable points in the first design.

1. The appointment of what were called 'chefs de brigade,' and 'aides de laboratoire;' these were pupils who were to be selected from among those who had finished their studies. One was to be attached to each brigade of students, as it entered the school, and was to continue with them throughout their whole course. Their duty was to explain what was difficult to those under their charge, and to be always with them in the hours of study. The 'aides de laboratoire' had the same duty to perform in the laboratories of every description. These officers were chosen at first from among the more intelligent students, and were prepared for their duties by additional instruction.

2. The arrangement of the hours of study. These were varied by the alternation of oral lectures and practical applications. This system is followed to the present day, and it is probably owing to this that so much time can be devoted to study as is the case. The students are employed not less than twelve hours a day.

The whole management was placed in the hands of a council, consisting of the professors and their adjoints, the director, two sub-directors, and a secretary. One of their number was chosen monthly, by ballot, as inspector and president, and he could not be re-elected until after an interval of a month. In addition to all the duties of management, this council was charged with the extension and improvement of the sciences and arts taught in the institution.

To their two-fold occupations the members immediately proceeded with Lagrange for their president, mixing up debates on the management and organization of the institution, with experiments on the congelation of mercury, until Monge, who succeeded to Lagrange, found it necessary to appropriate different sittings to these different objects.

Among the names of the original professors we find those of Lagrange, Prony, Monge, Hachette, Fourcroy, Vauquelin, Berthollet, and Chaptal. The first of these, then at the head of European mathematicians, gave a celebrity to the opening of the courses which has fallen to the lot of but few similar institutions, by delivering lectures on the elementary branches of mathematics. But, while all seemed going on prosperously, the students, who were not exempt from the service of the national guard, were called on to lend their assistance in protecting the government from the factions by which it was menaced in May, 1795. To add to the confusion, the salary granted to the students, which, though nominally sufficient, was not really so, in consequence of the depreciation of the assignats, was found inadequate to the supply of their daily wants. The government began to hesitate as to the possibility, or at least the expediency, of maintaining such an establishment. The system of instruction, and the expense at which it must be supported, were disapproved of by many.

These objections were answered by Prieur de la Côte d'Or, in a memoir presented to the public Committees. An additional argument was derived at this period in favour of the Institution, from the appearance of the first number of the Journal Polytechnique. This work was intended to contain the description of the methods of teaching, and the account of discoveries and experiments made by the various members of the school.

On the first of September, 1795, some alterations were made in the organization of the establishment. Its name was changed from 'Ecole Centrale de Travaux Publics' to 'Ecole Polytechnique.' The preliminary knowledge required from candidates for admission was increased. In addition to a greater quantity of algebra, trigonometry, conic sections, and the application of algebra to geometry were required; and examiners, not connected with the school, were appointed to decide on the relative merits of the aspirants. It was also decreed that all who, in the first year of their studies, did not accomplish two-thirds of the course marked out for them, should be obliged to retire from the school, with the permission, however, to present themselves for re-admission after the lapse of a year. The school was shortly afterwards placed

under the authority of the minister of the interior, and the courses were so arranged, that all who, at the end of the second year, were not marked out as military engineers or engineers of roads and bridges, were transferred to the schools connected with their respective arts.

During the first year of its existence, the Polytechnic School had many disadvantages to contend with. Some have been already mentioned, in addition to which the buildings connected with the Institution were so far from completion, that the professors were in some instances obliged to give their instructions while the workmen were at dinner, and the coast was clear. The cold of a remarkably severe winter, the want of provisions, and consequent diseases, the continual impulse of party fury, threatened its existence from day to day, and its survival proves the wisdom and energy with which its affairs were conducted. Even in our day, it was judged necessary to disband the students after the events of last July, and to suspend all study until the excitement had a little subsided. But in 1795, every day was one of insurrection, and the students, as might have been expected were to be found on various sides. The second year opened more quietly. The ordinary seminaries of instruction had been re-opened ; many students, who had quitted the school from distressed circumstances, were allowed to return; it had already acquired some reputation, as appeared from the desire manifested by the other schools, mentioned in the preceding part of this article, to obtain permission for some of their students to finish their education in it. Some changes were made in the administration, of which the principal was that the director was made the permanent president of the Council of Administration. He was, with all other officers, to be elected by the council ; the approbation of the minister of the interior being necessary to the appointment of those only who were *ex officio* members of the council. The Journal Polytechnique was required by law to be published every month, with the objects before-mentioned. This regulation was the more necessary, as the re-establishment of the Academy of Sciences rendered this Journal no longer the only one through which new discoveries could be propagated. The school was now in high favour with the government, notwithstanding the fact of the students having on one occasion taken part with the people against it, and the necessity for the expulsion of two students, which arose out of their refusal to take the oath of hatred to royalty. Nevertheless the state could no longer afford the expenses incident to an establishment on so large a scale; reductions were

made in several of the departments of education, and the council, finding money no longer at their command, were obliged to have recourse to barter. Thus a quantity of platinum was obtained in exchange for some chemical apparatus, and on another occasion it was procured on condition that part of it should be returned in plates; and Guyton de Morveau consented to this employment, 'plus industrielle que scientifique,' as M. Fourcy phrases it. Two skeletons were taken in payment of some advances made for the School of Medicine. An ill-directed economy cramped the whole system of instruction; the students were reduced to three hundred; many necessary situations were abolished, and in 1797 the whole revenue of the school was fixed at 300,000 francs. In addition, what was called the Central Committee of Fortifications, in two reports to the minister of war, complained at great length of the exclusive privileges as they were called of the Polytechnic School, and of other points conected with its management, making at the same time propositions for its regulation. These were submitted to the Directory with an answer from the minister of the interior, the council of the school concerned having declined that task. The result was the following alteration in the design and mechanism of the institution. Three-fourths of the students were obliged to choose, at their first entrance, the department to which they would attach themselves, the number of these in each service being fixed. The total number was reduced to two hundred. The examinations for admission were to be printed beforehand, and distributed in the departments. Those students, who at the end of two years were not fit for removal into their respective schools of practice, were allowed only one year more to qualify themselves. Almost at the moment when these changes were made, the courses of fortification and architecture were abolished; and that in the middle of an academic year when all their details were in full operation. The school was at the same time accused of aristocratic feeling and incivism, which charge it was thought necessary to disprove by planting a tree of liberty within its precincts.

The Council of Five Hundred, at the end of 1797, had completed a system which they proposed to the Directory through Prieur. In his report he again insists strongly on the advantages of the institution, particularly in a point which is not sufficiently considered in our systems of education, namely, the variety of occupation and the alternation of works of the head and hand. As their whole proposal was rejected by the 'Conseil des Anciens,' it is not necessary to enter into its

details, further than to observe the nature of the objections which ignorance or mistaken political principle raised to it. One man in the Council of Five Hundred deprecated the use of the Greek alphabet in mathematical investigations; and many agreed in imagining, that the entrusting of public duties to those who by their education had been qualified for them above all others was a breach of the principle of equality. The School proceeded nevertheless. Some of the courses which had been suppressed were re-established, and in spite of new attempts to harass the students on account of their political opinions, which succeeded so far as to procure the expulsion of four who were suspected of incivism, public opinion set strongly in favour of the establishment. Bonaparte, after his Italian campaigns, was often present during the hours of instruction, and thirty-nine of the élèves accompanied him to Egypt, of whom seventeen were in the celebrated commission, of which Monge was at the head. The students began to shew the talent which has since rendered the names of many of them illustrious. One in particular, then not eighteen years of age, ventured to transmit to Lagrange some ameliorations of his method of developing the Binomial Theorem, which that most eminent man read publicly at the next lecture, declaring his intention of profiting by them in future. This student was Poisson, who is now among the very first analysts in Europe.

New troubles and the institution of the conscription had well nigh overturned the establishment. It was against the principles of equality to turn every man to that for which he was most qualified, accordingly ninety students were pressed as private soldiers. The well-judging foresight, which required at the commencement of the school, that the best made and not the best filled heads should be preferred, was no longer to be found in those who directed public affairs, and ninety voltigeurs were raised at the expense of as many well instructed officers of artillery or engineers. All that could be obtained for them was that those who had the requisite height should be made cannoneers, and that those whose regiments happened to be in garrison at Paris should be allowed to continue their studies.

The Council were in the mean while vigorously occupied in perfecting the system of instruction. There is not room for details, but it is useful to know the proportions in which the different branches of study were cultivated. For the year 1800 they were as follows in the following branches:—First year, analysis, 85; descriptive geometry, 120; elements of machines, 18—Second year, analysis, 40; mechanics 80; fortification,

60; architecture, 36; mining, 18. The principal discussion which took place was upon the question of what was called the exclusive privileges of the Ecole Polytechnique. It was not that all citizens of the republic were not equally eligible for admission, or that any thing but talent and industry was required to be shewn in the final examinations; the government argued, that because some might possibly qualify themselves at some future period for public offices, by private education, or in other schools, that therefore the course marked out by experience and justified by the most ample success should not be incumbent on all. As a general principle in ordinary cases, there is more to be said on this side than on the other, but the particular circumstances in which France was then placed would, if any thing could, have justified a departure from the method of free competition. As it was, the privilege was abolished which was the principal feature of the organization of 1799.

It would not be interesting to our readers were we to mark the less important changes which took place in times of internal quiet. We shall proceed to notice the few circumstances of the future history, which will excite attention. In 1800 the great object of the institution, that of supplying a sufficiency of well qualified men for the public services, was judged to be so far fulfilled, that the First Consul offered commissions in the line to the superabundant candidates, and in 1804 this offer was even extended to those who, though sufficiently prepared, could not be admitted into the school for want of vacancies. The Institution itself always received protection and support from Napoleon, though it is remarkable that, from the period of his consulship, he never visited it once, until after his return from Elba. It was esteemed highly in foreign countries, and at the treaty of 1803 between France and Switzerland, it was stipulated that twenty Swiss youths should be admitted to participate in its advantages. The same year was marked by a circumstance highly characteristic of the ardent temper of our neighbours. The invasion of England was contemplated. The students presented a memorial to the consul, praying 'que les élèves de l'Ecole Polytechnique soient au moins représentés dans *la grande action*,' and offering to construct a gun-boat with their own hands, and at their own expense. Their offer was accepted; and the consul, being well pleased to turn their attention to naval architecture, directed that theoretical instruction should be mingled with the progress of the work. In the words of M. Fourcy, 'the school became a workshop, the library was filled with models, and other places with blacksmiths and sail-makers.' The vessel thus constructed was called *La*

Polytechnique, and was actually launched, under the command of a student of the school. The whole circumstance is remarkable, as affording a proof how soon such instruction as is given in the Polytechnic School may be converted to practical purposes.

The years 1804 and 1805 were partly occupied in deliberations on the manner of making several proposed changes of great importance. The Emperor had decreed that the students should be all placed in one building, instead of being distributed in private families. The reasons for this determination are supposed to have been some riots which took place at the theatres and elsewhere, in which a few of the students bore a part. The 'College de Navarre' was fixed on as the future school, but it did not become so until November 1805. It was also settled that in future each student should pay a fixed sum yearly towards his board and other expenses, with the exception of a certain number of those whose circumstances were not sufficiently good. The institution of 'chefs de brigade,' already mentioned, was found not to answer its end as a means of preserving order, on account of the impossibility of exercising a real influence on the students by means of those so little older than themselves. This was remedied by placing over the 'chefs de brigade' other officers, entitled 'chefs d'études,' who were to be chosen from among those whose education had been completely finished. The whole institution was then put under military discipline, and from this time its existence in its present form may be dated.

One remarkable fact may be stated, as tending to shew that habits of hard study have no necessary tendency to shorten life. At Paris the average of deaths between the ages of 18 and 21 is 1 out of 80. From the commencement of the school till 1805, during which the students had to contend with disease and famine, in addition to their daily toil, the average of deaths was 1 out of 73. From 1806 to 1816 it was, on the contrary, 1 out of 119, and from 1816 to the present time it has been only 1 out of 220.

We may now notice the number of excellent elementary works in various departments of science, which have proceeded from the Ecole Polytechnique. At the head of these stands the 'Géométrie Descriptive' of Monge, which for clearness, arrangement, and beauty, has in our opinion never been surpassed. Of the following, some are, and all ought to be, well known in this country. The application of Algebra to Geometry, by Monge and Hachette; Course of Fortification, by Gayvernon; Differential and Integral Calculus, by Lacroix; Treatise on Physics, by Haüy; Mechanics,

by Poisson; Mechanical Philosophy, by Prony; on the composition of Machines by Lanz and Bétancourt; the Theory of Functions, by Lagrange; the Treatises on Chemistry of Thenard and Fourcroy; and on Geodesy, by Puissant. The Correspondance sur l'Ecole Polytechnique is a monument of considerable interest. It was undertaken in the year 1804 by M. Hachette, and continued for twelve years. It is filled with scientific articles, the productions of members of the institution, and with notices of all facts which could in any way interest them. There are also many works written expressly for the studies preparatory to admission, many of them excellent, and few below mediocrity. In this point of view the Ecole Polytechnique must be considered as having benefited the whole civilized world. That it has filled the French armies, and other public services with efficient engineers is sufficient to entitle it to the admiration of a Frenchman; but in addition, it has most materially forwarded the art of elementary writing, and has both advanced, and rendered more easy those sciences, which are connected with its professional objects. Nevertheless, in giving instruction upon such an extensive scale, it was found hard to ensure that all should combine rapidity of progress with the necessary recollection of preceding subjects. The difficulty was increased by the Council of the Polytechnic School not having it in their power to choose for the public service, from a large number of students, on whom trial of the system had been made. The whole school hardly supplied the necessary candidates for every office; thus all who were admitted were sure, provided their talents and industry came up only to the average, of being employed in some public line, which certainly most materially checked the force of emulation. Complaints were made by the Council of the Schools of Engineers at Metz, which from the beginning had regarded the Polytechnic School with a jealous eye, that the candidates for their department were ill instructed. Much discussion took place, which was terminated by an examination of six of the pupils, of whom half only answered well. This was not thought sufficient; and to remedy the evil, the students of the second year were subjected weekly to examination in the subjects of the first, and the programmes of the courses of lectures were examined with the utmost care, in order to strike out whatever might not be absolutely necessary for application to practice. The other public schools had nevertheless declared themselves satisfied with the students of the Ecole Polytechnique, and the benefits of the extent of education which they received had been sensibly felt in various places. Thus both

military engineers, and those of roads and bridges, had been taken to Egypt, direct from the Polytechnic School, without any further study or practice. In Portugal, officers of artillery had been employed in the formation of roads, &c.

The events of the war, from 1810, to 1814, exercised the same influence on the school as on the rest of France. The civil departments were allowed to remain nearly altogether unsupplied, while the education of each individual was hardly half completed before he was required to join the army, whatever might have been his previous destination. So certain was any display of talent of forcing upon the owner an engineer's commission, that all who did not choose a military life were obliged to conceal their knowledge. It was indeed in the power of any one to give in his resignation as a student, but a conscription for the ranks awaited him at the door, and no choice was left except between the epaulette of an officer, and the musket of a private soldier. But, whatever might be the feelings of the students in general, with regard to military pursuits, or their disposition for foreign warfare, as soon as France appeared in danger of invasion, the whole body offered their services to fight in the ranks. Napoleon refused their offer, alleging that he was not yet reduced to such extremity as to kill the hen which laid him golden eggs. Nevertheless, when his affairs were become desperate, he offered to place the students in the ranks of the guard. He was however persuaded by the managers of the school, to form them into a corps of artillery. This little body behaved with the greatest courage in the action under the walls of Paris, March 30, 1814, where eleven were wounded and six taken prisoners. At the return of Napoleon, they were again formed into a company of artillery, and did not resume their studies till after the final restoration of Louis XVIII. The excitement of the times was, however, prejudicial to the discipline of the school. On the 12th of April, 1816, a very slight matter put the students into a state of open rebellion against their superiors, which was settled next day by the expulsion of the whole body, by a royal ordonnance, with leave, however, to be examined for admission into any of the public schools of engineers, after the lapse of a year. The school was re-established in the September of the same year, which charge was entrusted to a commission headed by Laplace, and was placed under the protection of the Duc d'Angoulême. Its military organization had been abolished at the restoration, and continued so till 1822, when it was thought advisable to re-establish it, as a check upon the deliberations of the students, which had several times led to breaches of disci-

pline, and a means of hindering a system bearing some little resemblance to fagging, practised in our public schools. This, far from being regarded as a most excellent system, as it is by some amongst us, was considered by the 'Conseil de Perfectionnement,' as of ruinous effect upon the progress of the students, and it was seriously deliberated whether it would not be advisable to render it impossible, by returning to the former system of boarding the students in private families. The military organization which was introduced immediately after rendered this unnecessary, and was the last material change which took place in the management of the institution. The display of courage and patriotism which was exhibited by the whole body of students in the 'three days' must be well known to all our readers. The words of Charles X., in a speech from the throne, 'J'aime à vous dire combien je suis satisfait de l'Ecole Polytechnique,' are probably by this time retracted by the speaker, and certainly adopted by the whole French nation. The next paragraph of this royal speech shews that the wish of our heart may sometimes be fulfilled to our loss, viz.: 'J'espère qu'elle continuera de produire des sujets utiles à l'état et propres à toutes les parties de l'administration.'

We proceed to describe the regulations and studies of the School as they stood in July last. The whole is directed, under the authority of the minister of war, by a governor and sub-governor. The discipline is military The students are admitted according to their places in examinations, held in the different departments, usually in August. The candidates are required to know, 1. arithmetic, with logarithms, proportion, &c.; 2. geometry, plane and solid, as far as the properties of spherical triangles; 3. algebra, as far as the theory of equations inclusive; 4. plane trigonometry; 5. statics, the propositions being synthetically demonstrated, and applied to the more simple machines; 6. the algebraical discussion of lines of the first and second degrees; 7. the application of logarithmic tables to the solution of triangles; 8. Latin enough to translate a simple author; French composition; 9. drawing, as far as copying an easy design. They must also be able to construct the more simple propositions of descriptive geometry. These are all obligatory, but regard is also paid to a candidate's knowledge of natural philosophy and chemistry. All must give notice before examination, as to whether they intend to enter the public service or not, since a certain proportion of students are admitted for the sake of supplying competent teachers in the different branches. Those who choose the latter course are

allowed to alter their determination at any time. Those who prefer the former, state on entering which service they prefer, and in what order they would choose between the rest. No candidate is admitted who has ill health, or who has not either had the small-pox or been vaccinated. The yearly payment is 1000 francs, or £40 sterling, and each pupil is required to bring with him a uniform, linen, &c., to the amount of about £30. The ordinary time of remaining in the school is two years, some however are allowed to remain three years, but never more. There are 24 'bourses royales,' a species of endowment to those whose means are insufficient, professed to be granted only to those whose parents have done service to the state.

It may be useful to those engaged in instruction to know the proportions in which the time given to oral lectures is divided, particularly as all is arranged with reference to practical utility only, and the whole system has been found to answer extremely well. We subjoin, therefore, the number of hours during which the Professors are actually engaged in communicating instruction:—

FIRST YEAR.	Hours.	SECOND YEAR.	Hours.
Mathematical Analysis	52	Mathematical Analysis	65
Geometry	15	Geometry	15
Statics	34	Mechanics	75
Dynamics	18	Geodesy	28
Descriptive Geometry and applications	108	Machines	22
Analysis applied to Geometry	24	Political Arithmetic	6
Physics	51	Physics	42
Chemistry	54	Chemistry	54
History, Belles Lettres, &c.	34	Architecture	51
		History, Belles Lettres, &c.	34

It may appear that, considering the vast extent of the sciences taught, the time actually employed in communicating instruction in each is too small. It must be recollected, however, that since the best candidates for admission only are chosen, the professor has not so much occasion for entering into minute detail as if he were addressing an average class. Assisted as he is by excellent books, and by officers whose business it is to explain to the student whatever he does not at first comprehend, his duty is to enter into general principles, and to lead the student to what he must learn for himself, rather than to teach him. Each lecture is immediately followed or preceded (according to the difficulty of the subject) by a portion of time during which the learner is re-

quired to employ himself in preparation, or application. During this time he is assisted, if he requires it. It is to this union of the advantages of a school and a university that the Ecole Polytechnique probably owes a great part of its success in teaching.

Under the term analysis is included all that part of mathematics in which that method of investigation is employed. The student comes to the school prepared to commence the differential calculus. In the first year are taught the elements of the differential and integral calculus, which, in the second year, are applied to differential equations and the theory of surfaces.

In mechanics, the first year is devoted to the first principles of statics and dynamics, and applications, among other things, to the elliptic motion of the planets, the theory of the simple pendulum, the centre of gravity, the attraction of spheres, &c. The second year is devoted to the general principles of equilibrium and motion, of rigid and flexible bodies, the compound pendulum, &c.; hydrostatics and hydrodynamics.

Descriptive geometry, known only in England by some of its most simple applications, on which, as a system, we have not a work in our language, is considered in France as the staple, if we may so express it, of an engineer's education. It has for its professional object to facilitate the construction of all solids, by enabling the workman to lay down on paper the actual lengths and relative positions of the parts without having recourse to models or solid figures of any sort. In addition, as an exercise of the mind, it yields to no part of mathematics, as may be seen from the excellent treatises of Monge and Hachette. It is applied to perspective, the projection of shadows, fortification, drawing of machinery, and all the work of the stone-mason and carpenter. It forms a large part of the studies of the first year at the Ecole Polytechnique.

In machinery, the students are instructed in the nature and comparative advantages of the elementary parts of machines, the different moving powers, and the union of the two branches in most of the machines in common use.

In geodesy is taught as much of astronomy as is necessary for understanding the solar system, the determination of longitude and latitude, &c.; also, the general principles of physical geography, and the use of the magnet and barometer. The trigonometrical methods of measuring the earth are then explained, with the use and construction of the instruments, the projection of maps, &c.

In political arithmetic, the doctrine of chances is applied to questions connected with population, lotteries, insurances, &c.

The elements of an extended course of natural philosophy and chemistry are given with all the detail requisite for applying the principles to practice. In both subjects, particularly the latter, the student is accustomed to continual manipulation, and is rendered familiar with the principles of all the arts which depend on these sciences for their utility.

In architecture, instruction is first given on the different materials in use, then on the several parts of buildings, and afterwards on the application of the two to the construction of a complete edifice.

In history, &c. the literature and history of France up to the death of Louis XIV.

A great part of the student's time is given to topographical design and the drawing of figures and landscapes. In the first of these a few lectures are given on the general principles.

In addition, the students are allowed and encouraged to visit the different museums, observatories, and workshops, where instructive models are preserved, and useful operations carried on. The school itself possesses an excellent cabinet, not only of models of machinery, but of those surfaces which it is difficult to represent on paper. These are made in an ingenious manner by the superintendent of the apparatus, who has likewise sent them to all the civilized countries of Europe, with the exception of our own, and to the United States of America.

We have thus given an abstract of the history and methods of the most celebrated school of instruction for engineers which has ever existed. Such an institution is the thing most wanted in this country. It matters nothing to say, that we have carried many of the arts there taught to a higher degree of perfection than the French. If the genius of our people leads them to greater excellence in this department, why not increase the disproportion still more by the help of system and education? We may and shall be surpassed in the arts in which we most pride ourselves, unless we attend to the formation of those by whose exertions our superiority is to be maintained. Neither is the argument fairly stated, when our manhood is compared with the youth of our neighbours. Before the first revolution, no country was so destitute of practical science as France, and in thirty years no country ever made the same progress. Because we are still much in advance, does it follow that we must therefore remain so? Are we to take no means to put ourselves in mo-

tion, until the decline of our commerce convinces us that our rivals are come up with us? It will then be too late to rectify the error, since the production of a large body of well-educated men is a work of some time, and more still is necessary before their influence can be felt. It is to be expected that the extension of the higher parts of education, which is undoubtedly taking place among us, will reach those whose business it is to apply the sciences to practice. But this is not enough to give assurance, that we shall ever find among our practical men a Monge, a Malus, or a Fresnel, unless a system be adopted calculated to encourage the application of theory to professional pursuits, and to put the researches of the few to the purposes of the many, and to stimulate those whose business lies in one branch, to bring to it the assistance of the knowledge derived from the rest.

GERMAN HIGH SCHOOLS.

Gymnasium at Lemgo.

In most of the German high schools the examinations take place annually, and in some, twice a year. The head masters publicly announce these examinations in small pamphlets, commonly called *Programmes*, which contain also such statements concerning the school affairs as are considered to be interesting to parents and guardians, or to the public at large. We propose to notice these publications occasionally, and to make them the means of giving our readers a more accurate idea of the manner in which the business of education is conducted in the various parts of Germany. To examine the philological dissertations usually prefixed to the school-accounts, excellent as they sometimes are, would lead us from our present purpose.

The subject of the present article is the Gymnasium at Lemgo, in the principality of Lippe,* which acquired a very high reputation in Germany, under one of its late rectors, Reinert, who died in 1820.

The gymnasium at Lemgo was established in the year 1583, from which time to the present day the principal features of its constitution have remained unaltered. The institution is supported by the town funds, and is under the direction of the town magistrates. But recently, when the means of supporting it proved inadequate to the wants of the

* The principality of Lippe has about 90,000 inhabitants. Lemgo and Detmold are the two principal towns. Besides the gymnasium at Lemgo, there is a high school at Detmold, in which also young men are prepared for the Universities.

school, the government of the principality began to contribute to its support by an annual donation, for which it reserved to itself the supreme control over its management.

Six teachers are charged with the business of instruction, the four principal being designated by the titles of Rector, Prorector, Conrector, and Subconrector.

The school has five classes. The average age at which pupils enter the lowest class is from eight to nine years. A pupil's advancement to a higher class depends upon his proficiency. The degree of proficiency requisite for entering a University is generally attained about the eighteenth or nineteenth year.

The following particulars of the plan of instruction are taken from the published accounts:—

I. *Religion.*—In the three lower classes biblical history is taught, and the Christian doctrines according to Zerrenner's catechism. In the two upper classes, parts of the Greek Testament are read; a brief account of the history of the Christian religion is given; and the doctrines of christianity are more systematically developed.

II. *Latin Language.*—(Grammars: *Broeder & Zumpt.*) In *Quinta*, (the lowest class), the rudiments of the language are learnt as far as the conjugation of the regular verbs. In *Quarta* the pupils are made familiar with the whole etymological part of grammar; and easy sentences are translated from Latin into German, and from German into Latin. In *Tertia*, Latin authors, such as Nepos, Justinus, Cæsar or Phædrus, are read, and the rules of syntax are taught by means of written exercises, adapted to the successive paragraphs of Zumpt's Grammar. In *Secunda*, Livy, Sallust, easy orations of Cicero, the Æneid, or select parts from Ovid's Metamorphoses, are read; and translations are made from German into Latin. In *Prima*, the rhetorical or philosophical writings of Cicero, or some of his orations, are read, together with Tacitus, Horace, Terence, or Virgil. Once in every fortnight each pupil has to write a Latin essay on a subject given by the Professor.

III. *Greek Language.*—(Grammar: *Buttmann.*) It is taught only in the three upper classes of the School. In *Tertia*, the etymological part of the grammar is learnt, and written exercises on it are required; at the same time the first part of the well-known elementary work, by Jacobs, is read. In *Secunda*, the study of grammar is continued and completed, and Homer, Xenophon, Arrian, or the lives of Plutarch, are read. In *Prima*, Homer, Sophocles, Herodotus, Thucydides, Plato or Demosthenes, are read, with constant reference to the grammar.

IV. *Hebrew Language.*—(Grammar: Gesenius.)—It is taught in the two upper classes, for the sake of those pupils who intend to study theology after they have left the school.

V. *German Language.*—In *Quinta* and *Quarta*, short themes are written, and the fundamental rules of German grammar are learnt. In *Tertia*, the grammatical instruction is completed, and the writing of themes is continued. In *Secunda* and *Prima* also German essays are written, and the history of German literature, or logic and rhetoric, are alternately taught. Besides this, there are in each class exercises in the oral delivery of extracts from classical German authors that the pupils have learnt by heart.

VI. *Modern Languages* are not taught in the school; but some of the Professors give private instruction in French and English.

VII. *Mathematics.*—(Class-book: Kries, for the higher classes.) The mathematical instruction in *Quinta* and *Quarta* is confined to the elements of arithmetic. In *Tertia*, a beginning is made with plain geometry; in *Secunda* and *Prima*, are taught stereometry, trigonometry, logarithms, conic sections, &c.

VIII. *History.* Historical instruction commences in *Quarta*. In this Class, as also in *Tertia*, it is confined to ancient history. In *Secunda* and *Prima*, universal history is taught, in three lessons per week, the entire course being continued during three years.

IX. *Antiquities.* In the two higher classes, instruction, or lectures, are also given on Greek and Roman antiquities, comprising the history of classical literature, ancient geography, and an account of the philosophical systems of the Greeks.

X. *Geography,* as an object of instruction by itself, is confined to *Quarta* and *Tertia*. The attention of the pupil is chiefly directed towards physical geography. The sites of remarkable towns, and other particulars belonging to political geography, are pointed out with constant reference to the natural features of each country, its mountains, rivers, &c.

XI. *Natural History* is taught in *Quarta* and *Tertia* only, where the instruction is given according to a manual by Schubert.

XII. Singing is taught two hours weekly, one hour being appropriated for junior, and another for senior pupils.

XIII. *Calligraphy* is taught in the three lower classes. Drawing is not taught in the school.

The number of weekly lessons for each class in the various departments just specified, may be seen from the following table.

Classes, and Number of Weekly Lessons.

Objects of Instruction.	1st Cl.	2d Cl.	3d Cl.	4th Cl.	5th Cl.	Total.
Religion	2	2	2	2	2	10
Latin Language	9	8	8	7	3	35
Greek Language	7	7	4	0	0	18
Hebrew Language	2	2	0	0	0	4
German Language, &c.	3	4	4	7	11	29
Mathematics	3	3	3	2	3	14
History	3	3	2	2	0	10
Geography	0	1	2	2	0	5
Antiquities, &c.	1	0	0	0	0	1
Natural History	0	0	2	2	0	4
Singing	0	0	1	1	0	2
Calligraphy	0	0	1	2	5	8
Total	30	30	29	27	24	140

The following is a list of the number of pupils in each class at the close of the winter session of 1829 and 1830.

	1829.	1830.
Prima	9	11
Secunda	7	6
Tertia	11	15
Quarta	41	34
Quinta	32	42
Total	100	108

The fees payable for attendance in the several Classes are, per annum,

for Prima	12 dollars	(£1 16.)
— Secunda	10 dollars	(£1 10.)
— Tertia	6 dollars	(£0 18.)
— Quarta	5 dollars	(£0 15.)
— Quinta	4 dollars	(£0 12.)

Two of the professors take pupils from abroad into their families. Terms: twenty louis d'or per annum (about 16*l.* or 17*l.*)

There are two sessions in the year, one commencing at Easter and the other at Michaelmas. A public examination is held at Easter, and a private one at Michaelmas. There are four vacations of two weeks each at Christmas, Easter, Midsummer and Michaelmas.

Before a pupil leaves the school for a University, he must undergo a particular examination to obtain his testimonial of *maturity*. This is a general regulation in all the German schools. No pupil is admitted into a University without producing such a testimonial from the school where he has been educated.

EDINBURGH SESSIONAL SCHOOL*.

Should some traveller tell us that he has just come from a country where children are educated in such a way, that the time of their lessons is to them a time of real happiness; should he assert that he saw them eagerly running to school; that he heard them answer in a few minutes, nay in a few seconds, questions about which children, of equally good understanding, are often seen elsewhere groaning for hours and weeks, would not there be a suspicion of exaggeration? But suppose the traveller's report should be trusted, would not every one eagerly inquire where, and by what new art, have such effects been produced? Well then, it is neither in a distant land, nor in the fertile imagination of some philanthropist, that this wonder exists, but it is in this island. This new art is nothing, but what every sensible man already knows; nothing, indeed, but the well-digested combination and explanation of some few sound principles, which all ages have proclaimed to be true, but which, in all ages, have been pitifully abused, and more pitifully misunderstood or misapplied. Thus, because seldom failing experience had taught mankind, that idleness is the parent of ignorance and vice—teachers of youth have idly concluded, that the longer children could be employed, no matter about what, or in what manner, they would get the *habit* of industry; and, thus, the pleasant time of childhood, instead of being employed in alternate bodily and intellectual exertions, to fit youth for their maturer and more important duties, has been changed into hours of tediousness and sorrow. And, because reason had taught mankind, that no means ought to be spared to destroy the seeds of immoral habits, teachers have concluded, that the most violent, and apparently the most expeditious means, would answer best; and, accordingly, the work of reformation in schools has generally been only an oppressive tyranny; and it has not been considered, that the same blow, single or repeated, might injure truly sound and promising principles, while its effect on bad principles is at least doubtful. And even now there prevails in our best public schools the Draconic practice of the rod, a mere expedient for saving time and trouble to the masters; a practice whereby all sorts of faults are wilfully confounded and assimilated, since teachers of learning

* This article contains the reflections of an intelligent foreigner on our general school system, and on the working of the Edinburgh Sessional School.

and science inflict indiscriminately the same infamous punishment upon all kinds of delinquents. Who can deny that amiable, good-natured boys are daily degraded to the same level with decidedly dishonest, unpromising schoolfellows, when their fault is nothing more than some trifling irregularity, or the consequence of some careless habit, for which, perhaps, the master is censurable? but who can wonder at it? For is it a grosser inconsistency to flog a boy on account of some blunder in his parsing or scanning, than to plague him intentionally with an extra lesson, on account of some pistol-firing, or pane-breaking, or some other faults, which have not the least connection with his studies? We admit indeed that boys should acquire the habit of doing the regular school business; but it is beyond our conception, that boys should be punished with lessons because they do not like them, or even because they do not improve in them. Poor boys! how can you be fond of lessons which you daily see imposed as a punishment? How can you improve in studies? how can you understand the object of studies, which cost you so many tears?

Finally, because experience and reason have taught mankind that knowledge is the most desirable of all earthly goods, it has been thought that experience and reason gave their sanction to *any* method of imparting knowledge. How few indeed have ever considered that the most scientific modes are often the worst of all for beginners; and how very few truly learned men have ever humbled themselves so low as to undertake to write elementary books, which would be well adapted for young learners! We do not mean to expatiate on the absurd system of teaching boys clever things, merely because they are such, though mostly beyond the reach of their intellectual powers; we do not mean to appeal to common sense, in order to prove what every man is aware of, namely, that there must be, that there is an ascending scale to follow in the course of studies, for all this is reckoned among truisms; but if they are truisms, why is it still in some schools a sort of prodigy when a boy knows more about his own country and the objects of daily investigation, than about Ilion or the wrath of Achilles? Certain it is, that, in great schools, upon a liberal footing, the knowledge of antiquity should be considered as part of the basis of all future improvement; but ought it to be considered as the only part, even as the corner stone of it? Poor boys! the master will readily forgive you, if you do not know what bread and clothing and houses are made of; but none will forgive you, if you are unable to repeat a long set of examples, which

you hardly understand, in explanation of rules and exceptions, which you understand still less. You are pronounced nothing but ignorant, idle fellows, because you find it too hard to learn a dead language, through the medium of another dead language, of which you stammer a few monosyllables. But this is, they say, a capital way of exercising your memory, if not your judgment; or your patience, if not your memory.

Such is a slight sketch of what is styled by many—the old system, the respectable old system, by which the rising generation must be trained But where is the true lover of his country who knows how much the condition of society depends upon the care taken of youth both in school and at home, who will not be tempted to cry out to his countrymen, Look around you—other nations are making great and gigantic steps to overtake you? Already they are determined to enjoy the benefits which you enjoy; they are proud to possess your sympathy and approbation; their eyes are turned to you as to their best model, but beware, lest ere long they leave you behind in the race, after having tried and adapted to themselves, what is really good in your institutions; and then you will have no other resource but that of becoming in your turn the imitators of those to whom you were so long a noble model.

The thanks of the community are justly due to two gentlemen, whose indefatigable exertions have been attended with the most admirable results in Edinburgh. The names of Mr Pillans and Wood are deserving of the respect of all who take an interest in the education of youth. For widely-extended as education is in Scotland, they felt that sound principles of teaching were little understood, and their object, accordingly, has been to show how education could be easily improved. Their plan is not founded upon any of those seducing systems, which answer marvellously well as long as they are not put to the test. It is, as we said before, nothing more, but a well-digested combination of some few good principles (recommended in all ages from Quintilian down to Locke, Pestalozzi, Lancaster, Jacotot, &c.), and none exclusively; for though the worthy reformers just mentioned deserve universal gratitude, it cannot be said that they attained perfection in the art of teaching, but only paved the way to it.

We do not mean to say, that Mr. Wood's and Pillans' plan has attained that perfection, but having been eye-witness of its successful application, we feel it a duty to declare that it seems to answer better than any other. A principle that

ought never to be lost sight of, is this—to render the time of study as long, but at the same time as agreeable as possible; in other words, such, that the children's physical, as well as intellectual powers be the gainers by it. No doubt, children will never improve in any department without some efforts and fatigue: it would be absurd to expect it, still more so to act on this principle. But if children are made to find a pleasure and a sort of glory in surmounting obstacles for several hours together, the contriver of this must certainly be proclaimed one of the greatest benefactors of his country.

Our admiration will be sincerely shared, by those who have witnessed some of the exercises in the sessional school of Edinburgh; where the children are to be seen eagerly vying with each other in their readiness to give answers to questions proposed on the various subjects of their daily lessons, frequently not a little astonishing; whilst it is hardly possible to notice the least sign of weariness or impatience.

Whoever has seen the animation of those little monitors during their examination, whoever has tried to puzzle them with some questions, will acknowledge that similar things are not often seen. It is true that a great part of this animation is excited by the expectation, or the actual presence of strangers, who are freely and purposely admitted once a week; but, even without this excellent, though not always practicable part of the system, we do not think that the school exercises would be much less lively than we saw them. It is true also that no such voluntary instructors as Mr. Wood will be found at all times, and in all places, to superintend the whole; but this is no unconquerable difficulty, if proper choice be made of masters well prepared for the application of the system. Its principles will be found in Mr. Wood's account of the sessional school of Edinburgh, and further illustrations of it in Mr. Pillans' letters on elementary education. Our present object is not to write a review of those two little volumes—but only to excite a more general attention about the subject on this side of the Tweed, at a time when so many indispensable alterations are expected in the management of all sorts of schools. We shall only add a few words more to give a slight idea of the simplicity of the whole.

The first and fundamental principle is: *that children when taught anything, should be taught at the same time to understand what they are about; in other words, to arm them with two powers, the mechanical and the intellectual one:* for this is the only means of laying a good foundation for accuracy of observation, as well as for precision of ideas. How-

ever, it is properly recommended, not to push the instruction too far into minute details, for fear pupils should require the habit of substituting words for ideas, and lose the interest and novelty which historical facts, as well as the works of nature and art, ought to excite in their young minds. Therefore, never should there be too long and too scrutinizing an investigation into the mysteries of great discoveries and high sciences, as chemistry, astronomy, &c.; but rather agreeable descriptions and examinations of objects within the reach of their senses and understanding, whenever they occur in their reading, and other lessons, whatever they may be.

The second principle is that corporal punishment should very seldom, or rather never be resorted to—and without saying any thing more upon it, we ask whether it be not painful to think that such a truth, now generally acknowledged abroad, should be still a matter of hesitation with some people in England?

The third and last fundamental principle is: *that every pupil in school shall, at all times, have something useful to do, and a motive for doing it.* Mr. Wood ably proves that the only way in which this can be done, is by taking advantage of what is always practicable in the monitorial system. This, he says, and we believe it, is one of the most powerful principles of action, cheerfulness, improvement and love of study—so that the first and most important duty of the chief master consists in finding out clever boys for monitors, in order to train them every day for the lessons of the following day, which they will teach in their turn. What we have seen shows how well it can be done, with proper discernment of the several tempers and capacity. It is not only in order that the work may go on simultaneously and uninterruptedly, that this part of the system is reckoned of absolute necessity, but also because those young teachers are most likely better teachers than the master himself of the lessons which it is their duty to repeat to others. They feel indeed much better than any full grown persons, what are the difficulties, and how one can surmount the obstacles, which they themselves have surmounted the day before.

We see no well-grounded objections to the monitorial system being *tried* (but not too rashly adopted), at least in the lower forms of our great classical schools, provided a proper change of elementary books be previously made. We do not doubt, that if clever masters set about a thorough investigation, and consideration of the subject, great changes would be made in the old system. Mr. Wood and Pillans have shown, that hitherto the art of teaching is but in its infancy; that it has

its principles as well as any other art; and that those principles, hardly thought of in the appointment of masters and tutors, ought to be ranged among their most requisite qualifications.

We cannot conclude without mentioning a circumstance connected with this school, highly calculated to give a proper idea of the individual character of its zealous promoter. That circumstance is, that Mr. Wood's pursuits in life are not connected with education; he is an advocate, and Sheriff of Peebleshire, so that it is merely out of the noblest and purest motives that he has devoted himself to an active superintendence of this school, because he was conscious that it would be widely beneficial to the poorer classes.

EDUCATION IN THE IONIAN ISLANDS.

Though we are not at present able to give any complete account of the education of the Ionian Islands, we think that the following short abstract of the regulations prescribed by the government for the secondary schools may appropriately be inserted in this Journal, since official documents, like that on which our statement is founded, can never be very extensively circulated. The paper before us is printed in Italian and modern Greek, in parallel columns, and issued by the authority of the Senate (Βουλή). It contains under five heads all the regulations for the Secondary Schools of the United Islands*. The first head relates to instruction, of which the following are the chief particulars:—

In the first year are taught,

1. The ancient Greek language, 4 lessons a week.
2. The Italian language . . 3 ditto.
3. English . . . . . . 2 ditto.
4. Arithmetic . . . . . . 4 ditto.
5. Writing . . . . . . 1 ditto.

On each day there must be a repetition of the lesson of the preceding day; and on the sixth day of the week a repetition of the lessons of the whole week.

The Greek master uses Buttmann's Grammar, translated into modern Greek, and the first volume of Fred. Jacobs's collection of Extracts from Greek Authors. In Italian, Soave's or Blandi's Grammar is to be used till the government orders some other, and

* Σύνταγμα τῶν δευτερευόντων σχολείων τοῦ Ἑνωμένου κράτους τῶν Ἰονίων νήσων.

the Antologia di Milano is to be adopted as a reading book. The English teacher must use the Epitome of Murray's Grammar, and the Greek and English Grammar of Lowndes, or the Italian and English of Vergani; and he must use as text books, Interlinear Translations from Select Authors, 'Goldsmith's History of Greece,' 'History of Rome,' 'Enfield's Speaker.'

The Mathematical master must use Bourdon's Arithmetic.

Second Year.			Books.
1	Greek,	4 lessons a week.	Buttmann, and Jacobs, vol. ii.
2	Latin,	3 ditto.	
3	Italian,	3 ditto. . . .	Soave, Antologia.
4	English,	4 ditto. . . .	As before.
5	Algebra,	5 ditto. . . .	Bourdon.
6	Writing,	1 ditto.	

The Latin master must use Soave's Italian and Latin Grammar for the present, and, as a text book for reading the language, the 'Selecta' of Padua.

In algebra the student advances as far as the theory of logarithms inclusive.

Third Year.		Books.
1. Greek	4 lessons a week.	Buttmann, Jacobs, v iii.
2 Latin	3 ditto. . . .	Selecta Patavina, pt. 2.
3 Italian . . .	3 ditto.	
4 English	4 ditto.	
5 Geometry, plane & solid,	4 ditto.	
6 Geography . . .	2 ditto.	

The professor of mathematics must use the plane and solid geometry of Legendre. In geography the text book is that of Adam Christian Gaspar, translated from the German into modern Greek.

Fourth Year.		Books.
1 Greek	5 lessons a week.	Buttmann, Jacobs, vol. iv
2. Latin	3 ditto.	
3 English	5 ditto.	
4. Algebra, completed,	2 ditto. . . .	Bourdon.
5. Logic	3 ditto. . . .	Soave's Logic.
6 Geography . . .	1 ditto. . . .	As before.

The Latin teacher will explain the second volume of the Antologia of Padua, and will teach the elements of metre and versification; and the English master will explain English authors of standard character, and give exercises in composition.

The English master may use the Hamiltonian system, if he thinks it calculated to facilitate the progress of his pupils; and the masters are permitted, by Art. 29, to make use themselves of such other books as will enable them to render their instruction more efficient.

The second chapter contains the regulations about the director, professors, and students, and their respective duties.

The director (διευθυντὴς) in each school is the head of all the professors, and it is his duty to see that professors and students follow the regulations prescribed by the government; and also that the professors treat their pupils 'con maniere civili, e con tolleranza e bontà.' Nothing is said about the behaviour of pupils to professors. The scholastic year begins on the first of October, and terminates at the end of July. The business of the school commences each year with a prayer and religious exercises, for the performance of which a respectable priest is attached to each school, whose duty it is also to officiate on all those days set apart for devotion by the School Calendar. The priest for each school is appointed by the Archbishop of the Island. To obtain admission into the Secondary Schools, a student must have passed with credit through the primary schools. His name, age, and the island to which he belongs, are registered in a book, and at the same time his certificate of baptism must be presented.

From among the numerous regulations of Chapter II, many of which, in our opinion, can produce no good, we select the following as specimens of the constant check kept on the professors, and their constant liability to be interfered with; a kind of discipline, we believe, which has never been found effectual wherever it has been tried, and in this opinion we feel sure of the concurrence of all persons who are practically acquainted with places of instruction.

Article 26.—When the director is not engaged in teaching, he must be present at the instruction of some of the professors, to observe if the course of study and mode of teaching prescribed by the government are strictly followed; and in case of any deviation from the rules, he must admonish him to return to the right course, and if the professor perseveres in his conduct, he must report him to the general commission.

Article 27.—When the director is present at any lesson, he may put to the students any questions on any previous lesson.

Each lesson must last one hour exactly. The director has the entire superintendence over the pupils, and it is his duty to warn them of the consequences of any bad conduct; to inform their parents or guardians if necessary, and finally, if they repeat the offence, to banish them from the school till there is good evidence of their reformation.

The following regulation (Art. 36.) is a good one. 'Every Professor must bring with him to each lesson a book, pro-

perly prepared and countersigned by the Director, in which he must enter the names of all the students who fail to attend. If a student miss thirty lessons in a scholastic year, without having the plea of illness or some other valid excuse, he loses his privilege of being examined at the end of the year, and of being advanced into the next year in the academic course.'

The third chapter treats of the examinations, which are conducted by the Director and Professors. The examinations commence one month before the close of the scholastic year, and the times of examination are so chosen as not to interfere with the business of instruction, which still goes on. These examinations are public, and one class is examined after another in the following manner. On a table covered with green cloth (specially provided for, Art. 2, Chap. III.) there stands a closed urn, into which the Professors put as many written questions as are necessary for the complete examination of a student. The number of these questions must be forty, out of which, after the urn has been shaken, the student must take six; and on these he is examined. Then the doors are closed, and the business ends by the bedell collecting in a ballet box the votes of the professors; the director (whose name and functions are perpetually brought before our notice) has a double vote, when the votes are equally divided. The results are then made known by the director; and they are divided into three classes, *best*, *good*, and *moderate* (ἄριστος, καλὸς, μέτριος). Two thirds of the votes are necessary to entitle a candidate to *best* or *good*; the *best* of course must be selected from those who have attained two thirds of the votes, and are consequently among the good. It may happen that a student may obtain *best* in one subject, *good* in another, and so on, according to certain combinations of those values (a matter of detail unnecessary to go into), and in this case he receives a proper certificate, signed by the director and professors, by which he is permitted to pass on to the studies of the next year; and his name is included in the report made to the commission. A student who does not obtain the necessary certificates cannot pass on to the studies of the next year, but must continue in the same year.

The fourth chapter orders, that a room shall be appropriated in every school to receive the books which the government may send to the library; and to hold the maps, mathematical instruments, and whatever is used in the school. The director appoints one of the students to take

care of the library, which is principally intended for those students who cannot afford to buy books.

The director keeps the school seal, which, when affixed to a certificate, gives it a legal form: the seal is an owl (*κακουβάγια*).

As a specimen of the language, and of the minuteness of the regulations, we give the following extract, which is the whole of Chapter V. (the last).

TITOLO V.

Dei Serventi.

In ogni scuola secondaria vi sarà uno o più bidelli, destinati al suo servigio. Esso o essi saranno incaricati della pulizia delle sale o stanze, e di tutto ciò ch' è annesso a questo ramo. Saranno sotto la sorveglianza del Direttore e de' Professori. Il primo potrà ammonirli quando mancassero a' loro doveri, e recidivando avrà la facoltà di congedarli. I Professori potranno provocare dal Direttore l' ammonizione o correzione de' bidelli seconda la natura del caso.

Τίτλος Ε'.

Περὶ 'Υπηρετῶν.

Εἰς κάθε Δευτερεύον σχολεῖον, θὰ εἶναι ἕνας ἢ περισσότεροι 'Υπηρέται, διωρισμένοι εἰς τὴν δούλευσίν του. Αὐτὸς ἢ αὐτοὶ θὰ εἶναι ἐπιφορτισμένοι διὰ τὴν πάστραν τῶν προδόμων καὶ τῶν κατοικίων, καὶ κάθε ἄλλο ὁποῦ ἀποβλέπει τὸν κλάδον τοῦτον. Αὐτοὶ θὰ εἶναι ὑπὸ τὴν ἐπιστασίαν καὶ τὰς προσταγὰς τοῦ Διευθυντοῦ, καὶ τῶν Διδασκάλων. 'Ο πρῶτος θὰ ἠμπορῇ νὰ τοὺς ἐλέγχῃ, ὅταν λείπουν ἀπὸ τὸ χρέος των, καὶ ὅταν λείψουν καὶ δευτέραν φορὰν, θὰ ἔχῃ τὴν ἐξουσίαν νὰ τοὺς εὐγάζῃ. Οἱ διδάσκαλοι θὰ ἠμποροῦν νὰ ζητοῦν ἀπὸ τὸν Διευθυντὴν, τὸν ἔλεγχον ἢ τὴν διόρθωσιν τῶν 'Υπηρετῶν, κατὰ τὸ εἶδος τοῦ σφάλματος ὁποῦ ἐπράχθη.

As we have at present no information on the working of this system, we can only judge of it by a knowledge of what takes place elsewhere. If there is any one defect that is more striking than the rest, it is the restrictions of various kinds that are placed on the teachers, who, if they be intelligent and well-educated persons, must frequently find the government regulations rather hard to abide by. If the teachers in the Ionian Islands are not yet such a class of men that they can be trusted with more discretionary power, it may be expedient for the government to exercise a strict superintendence, though we are convinced that surveillance and perpetual interference, or the power of perpetual interference, vested in any person whatever, can neither make men good teachers, nor keep them so.

Some superior power, it is true, there always must be, for the purpose of correcting abuses that may arise in places of education, and for making periodical inquiries into their condition; but this power is best exercised at stated intervals, the management of education being left to competent teachers,

who will find an adequate motive for exertion in knowing that their interest and reputation depend on their diligence, and that neglect of duty must necessarily bring with it loss of income and of character.

The great attention that is paid to the ancient language of Greece in the Ionian schools is a highly important part of the system, and we hope that its effect will be soon perceived in the improvement and purification of the modern language. The cultivation of Italian and English are also equally necessary; the study of the latter, however, we must consider, is principally due to the present political circumstances of the Islands; and though we cannot but feel gratified at the diffusal of our own tongue, we could wish to see the French also made a branch of education, as it yields in real importance to no department of learning that is included in the present scheme.

REVIEWS.

ZUMPT'S LATIN GRAMMAR.

1. *Lateinische Grammatik* von C. G. Zumpt, Sechste Ausgabe. Berlin, 1828, pp. 659.
2. *A Grammar of the Latin Language by* C. G. Zumpt, *Doctor in Philosophy, Professor in the Joachimstal Gymnasium, Berlin, translated from the German, with Additions by the* Rev. John Kenrick, M.A. *Second Edition, corrected and enlarged.* London, 1827, pp. 456.

The great success of Dr. Zumpt's Grammar in Germany, where it has already reached at least a sixth * edition, and the increasing circulation of Mr. Kenrick's translation in this country, would be sufficient to call for some notice of this work, even if it had no positive merit to recommend it. But as it possesses a very considerable reputation, and contains many improvements on preceding grammars, it will be useful to enter into a minute investigation of its merits and defects. The problem of acquiring a language with the least amount of labour has never yet been thoroughly solved, yet a very simple view of the question will lead to the conclusion, that in philology, as in the other sciences, classification and careful induction form the only safe foundation. Like botany or zoology, the science of language is founded upon natural causes, and if it were studied upon the same principles which have been so successful in the hands of Linnæus and Cuvier, it would be found to present results equally certain and regular. This is no idle comparison, nor fanciful illustration. The philologist will never arrive at great results and general conclusions, unless he proceed in the slow course of the Baconian philosophy. The vocabulary of a language is the field of his inquiries; in traversing this field he will continually find analogies to guide him in classification. Let him avail himself of these, and his industry will soon carry the classes of analogous words to such an extent, that subdivision will be necessary; and here, again, analogy will be the same easy and certain guide. A general classification, embracing the whole vocabulary of the Latin, or any other language, ancient or modern, would be at once the safest foundation for the inquiries of the philologist, and

* Of one edition alone *ten thousand* copies were printed.—*Translator's Preface.*

the most powerful aid to the beginner. The Greek language contains, we are told, above eighty thousand words; who, then, would undertake the task of acquiring this language, but for that beautiful system of ramification by which these words branch out from some few hundred stems? The knowledge, however, of the stem is not sufficient for the student, unless he know also the form and power of the several prefixed and appended syllables, by which the meaning of the stem is qualified. Much, then, will depend on the facility of becoming acquainted with these qualifying syllables; and this facility will again chiefly depend upon their number, which fortunately is extremely small. In the whole extant writings of Xenophon, it may be safely affirmed, that there are not more than one or two hundred different roots, and certainly not so many suffixes, with perhaps twenty or thirty prefixes. He who can read Xenophon will find little trouble, as far as the vocabulary is concerned, in studying the writings of any other prose Greek author of the same period; if we except *technical* phrases.

The Greek has been taken as an example, only because the systematic connexion of its several parts has long been familiar to the student. The Latin language is generally put before us at too early an age; and, though we master it, indeed, in a certain degree as a task, by dint of memory, we are not taught to observe those beautiful analogies which really exist in it to the same extent as in the Greek. The scholar, on the other hand, is called away by the more valuable and more interesting contents of the Greek tongue, and his attention is devoted almost exclusively to that quarter. To him the Latin language presents little that is valuable in the matter, and, if he has not examined its etymological forms, nothing but what is barbarous in its structure. Now, as it is the fashion to learn Latin, and as this language is generally supposed to be worth learning, it is certainly desirable that the time and labour bestowed upon it should be laid out as productively as possible.

A *complete* grammar should furnish every assistance to the student in the classification of the various suffixes or terminations, giving both their form and their power, while the dictionary should furnish him with the other component part of every word, viz. the stem. The only objection to a grammar that should comprise what we propose, is this,—that its very bulk would render it nearly useless to the beginner. This objection, it is true, is a most important one, though we believe that the whole system of suffixes, if clearly exhibited, would not extend much beyond the limits assigned to the accidence in our larger

grammars. Still the whole would be far too much for a beginner. The remedy, then, is simple,—to distribute it into portions, and to give him first only that which is necessary for his immediate wants. It is desirable, indeed, that this should be made as little as possible. There is no greater error than that of presenting the student at the outset with an accumulation of facts, the greater part of which can have no value except for the advanced scholar, while that which is simple and necessary is buried under a heap of useless matter. Give the pupil at first the little that is essential, before he opens a page of a Latin author; and supply him afterwards as his wants increase, with grammars that are adapted to his necessities and his progress.

But, in order to form a more precise notion of the compendium suited to the wants of a beginner, let it be supposed that some simple narrative, like that of Cæsar's Commentaries, is first placed before him. For reading these, what portion of the common accidence is necessary? Must we give the *complete* declensions of the nouns? No—the vocatives are useless. The pronouns? *Ego*, *tu*, *meus*, *tuus*, &c., never occur. The verbs? The third persons only are required; while the futures of the indicative, and the imperative, are not wanted at all. In the department dignified by the title of *Propria quæ maribus*, a complete revolution is requisite. Postponing to his hours of leisure the determinations of the gender of *siser*, *tuber*, and such words, the pupil will do better to confine himself, for the present, to the gender of those employed by Cæsar, or rather to such of them as belong to large classes. Thus the termination *tas*, *tatis*, occurring in every page of every Latin author, it is an economy of labour to learn the gender of some hundred words like this, from the gender of one. But, single instances, such as *sol*, *nox*, &c., are best learned as the pupil meets with them. According to this principle, a few pages will be found sufficient to comprehend a short series of the more important suffixes, each supported by several examples. Such a grammar would be sufficient for the beginner; but to meet objections as to its being too meagre, we might insert the declensions, &c. *complete*, though we do not think it necessary. And even this should not be committed to memory, but should be explained by examples, and applied as the several parts may be wanted; it should be used, in short, like a lexicon, as a book of reference. With this assistance, a pupil will find little difficulty in reading all the Commentaries of Cæsar; but, suppose that it be only the first book that he can master with this stock of

grammatical knowledge, we maintain that, by learning well one book of Cæsar, he has made no small progress in the acquisition of the language.

Nothing has been said about the syntax, because we do not think that much benefit, in this department, is afforded to beginners, from mere rules. Examples, indeed, are useful, but examples will be found in the author himself. Syntactical precepts are seldom understood by themselves, and still more rarely attended to. The deduction of principles from the observation of facts, and the constant application of them, are the best methods of making them familiar; and when once fully comprehended, they will be remembered without difficulty.

These prefatory remarks are not without their use in the subject proposed for examination. It is impossible to form a satisfactory estimate of the value of a grammar, unless we consider it in relation to the object for which it is intended. While a few pages of the simplest nature are sufficient for the purposes of the beginner, the extensive inquiries of the philologist require a complete and systematic analysis of the whole language; one, in which every separate part should be anatomized, all similar formations classified, all varieties noted, and, if possible, explained; one, that should not merely consider the elements of the language with respect to one another, but should point out their connection with the elements of the kindred tongues. Between these two extremes, Dr. Zumpt's work seems to hold a middle rank. Though far too bulky for the beginner, it will afford but small assistance to the labours of the philologist.

If, in the examination of this work, we were to take any other grammar as a standard, we should, perhaps, find little to condemn in it, for it is, on the whole, far superior to any other in use among us; but, our object is rather to compare it with what such a grammar should be, than with any that has yet appeared.

The chief merit of Zumpt's Grammar consists in a more copious, and better arranged syntax; the examination of which is not our present object. It is the etymological department, perhaps the most important of all, which will be here discussed; and, in this department, the superiority of Zumpt over our English Grammarians is less decided.

The Grammar begins with a section on the letters, which in the original occupies the space of ten closely printed pages. To this extent no objection could be made, had it been employed in establishing the power of the different letters, in pointing out the natural connection between them, and hence deducing the proper explanation of the euphonic changes, which are so

embarrassing to a learner, till they are clearly understood. As the ear of a German appears less sensible to the distinction between the sounds *v* and *w* as pronounced by an Englishman, we did not expect any thing precise on the nature of the *u consonans.* It would expose us perhaps to a charge of cockneyism, if we ventured to pronounce *vinum* like the corresponding word in our own tongue; and it would be idle as well as pedantic to adopt this pronunciation in practice. At the same time the establishment of the principle is essential to a right understanding of Latin etymology. The second great stumbling-block among the letters arises from the consonant *i*, or, according to modern orthography, *j*. The translator seems to have forgotten that this letter with a German has a power altogether different from that which we give it. A German will make no error in the pronunciation of *jubet;* an Englishman requires to be told that the true sound is *yubêt.* Custom has with us decided against the right sound; and we again repeat that we will give up the point of practice, if the principle be conceded. Many other points equally essential are altogether omitted; and in their place we have discussions about the orthography of particular words. For instance, we are told that *contio* is preferable to *concio*, because the former occurs on inscriptions. If this had been the proper place for establishing the orthography of an isolated word, little objection could be made; but it should at least have been added, that the older form of this word is proved by the very same authority to have been *coventio;* which in fact shows why *contio* is the preferable form. The question between *propitius* and *propicius* we will not attempt to decide, but certainly the *t* in *propter* would not affect that decision, as the author intimates. In page ten it is determined that *artus* is more correct than *arctus*, whilst on the contrary *auctor* is preferable to *autor.* Again *paulum, anulus,* &c., we are told should have a single consonant, while *immo, nummus,* &c., should have two, and so on. As no reason is given in support of these assertions, it is unnecessary to discuss them. But one question may be asked—Why fatigue the memory with distinctions idle in themselves, and not exemplifying any principle whatever?

Corresponding to these ten pages of the original, the translation presents only two; and if we take into account the difference of type, the proportion of matter must be still smaller. Whether this be owing to any judicious curtailment on the part of the translator, or to a difference in the early editions we do not know. A disagreement, arising perhaps from a similar cause, occurs in the following section on the division of syllables, where in the original a

system of division is recommended which would lead to such ludicrous results as *fra-gmentum, a-gmen, uni-madverto, longaevus*, &c. But of this there is no trace in the translation

The chapter which follows on the quantity of syllables, from its mere position in the Grammar, was not likely to present anything very valuable to the student The quantity of syllables must, from the nature of language, be in a great measure dependent on etymological formation; how then can we expect a philosophical investigation of this question, when the very elements on which the inquiry should be founded, are yet unknown to the student? Between a long *o* and a short *o*, there is at least as great a difference as between the letters *t* and *d*. It is therefore as important in our accidence to mark the one distinction as the other. And if such a system were adopted throughout this department, we should hardly have any occasion for a distinct chapter on the subject. Moreover the system of classification in this as in other treatises on prosody is too hasty Thus we have the broad rule laid down, that *us* final is short, and then of course follow a number of exceptions First, all the monosyllables are excepted; then, certain cases of the fourth declension; then, certain nominatives of the third declension, &c. In fact, so many exceptions are made, that the student has scarcely an idea of what is left behind All this heaping together of words that have no connection with one another would have been avoided had the quantity been marked throughout the etymological inflections. Let the nominative of the second declension, for example, be written servŭs. Here is an important grammatical fact, applicable to more than a thousand words. Standing by itself, it is impressed upon the student's memory. It may be compared with the corresponding form δουλος, of the Greek. On the other hand, in the prosody it is concealed behind the unmeaning phrase, '*us* final is short;' while the quantity of *palūs, paludis*, to which there is scarcely a fellow in the language, stands in all the dignity of a special exception. Or again, take one of the exceptions, 'the genitive of the fourth declension is long;' how much better would it be to mark the inflections—Nom. *portŭs*; Gen. *portūs*, where a mere child could scarcely fail to perceive that the long syllable was the result of contraction from *portuis*.

The objection we have just made is one against the whole principle of Zumpt's arrangement; it will be worth while, perhaps, to make a remark or two on the details. After a rule has been given for the quantity of the reduplicated syllable in perfects so formed, is it necessary to insert *dedi, steti*, under a separate article because they happen to be dissyllabic words?

Indeed, two others of the dissyllabic list, if not more, may be omitted. Thus, *tuli* and *scidi* were also, in their older form, reduplicated perfects, viz. *tetuli* and *sciscidi* (or perhaps *scicidi*), for both of which we have a long list of authorities, including, among others, Ennius. An attention to the form of *tetuli* would also have explained the apparent anomaly in *rettuli*, which is exactly analogous to the other perfects, *reppuli, repperi, rettudi*, given in page 17, all deduced from perfects of reduplication. Dr. Zumpt gives, with the same list, *reccido, redduco*. The perfect, *reccidi*, is strictly parallel with the above, and accordingly we find it in the *De Republica*, where it seems to have occasioned some difficulty to the Italian commentator. But the two presents, if there be authority for these forms, must be classed with *red-do*, and explained on grounds wholly different. Throughout this section there is much confusion from the same faulty classification. It may, perhaps, be difficult to assign the reason why the last syllable in *propterea* is long; but whatever the true explanation be, the same explanation will certainly apply to *quăpropter*. Yet in the text we find *quăpropter* and *trădo* thrown together because they are both compounded, and have both an *a* in the first syllable. On the other hand *propterea*, in Dr. Zumpt's distribution of words, belongs to a class which includes, among others, the imperatives of the first conjugation. In another list we find, in ludicrous juxtaposition, *sēdecim, mēcum, mēmet, venēficus, vidēlicet*, whilst *ilicet* and *scilicet* are torn away from *videlicet* to keep company with *ubique, ibidem, &c.*

A short chapter on Latin accentuation follows. The value of it we are not qualified to estimate, as we confess we have never yet obtained a distinct conception of the difference between accent and quantity.

The chapters on the declensions and genders of nouns present little novelty, and therefore scarcely require observation. In this, however, and other parts of his Grammar, our author appears to place too much reliance on the authority of the Latin grammarians. It should be recollected that most of these writers lived long after the authors upon whom their comments are made, and at a time too when the very structure, and certainly the idioms of the language, were materially altered. The living tongue of their times was an unsafe standard of comparison; whilst the relation in which they stood to the writings of Cæsar and Cicero was the same in kind as that in which we ourselves stand. On the other hand, it is much to be regretted, that not one among them possessed any of that philosophical spirit which begins to distinguish modern philology. Those who have been in the habit of con-

sulting the commentaries of Donatus and Servius, or the more systematic work of Priscian, will admit that the testimony of this class of writers, though of occasional value, should always be received with caution. The judgment of even Varro and Quintilian is not always to be depended upon, and their errors of judgment are often aggravated by the particularly corrupt state in which their writings have come down to us.

In the classes of numerals, which are given in great detail, (pp. 103—115) there seems little advantage in proceeding beyond those actually found in Latin authors, more particularly when the author mistakes the analogy which should guide him in the formation of these new words. Most of the following, we are told, are doubtful—*vicecuplex*, *tricecuplex*, ... *millecuplex*. It would be more correct to say, that not one of them either does or could exist: *vicuplex*, *tricuplex*, &c. would have the advantage of being analogous with those of the same class known to exist; but why invent new words? and still more, why put them into Grammars?

We were prepared, by a remark in Mr. Kenrick's preface, for a considerable difference between the two Grammars on the very important subject of the pronouns, and, after a comparison, we think the translator did well in taking from other sources the valuable matter comprised in his 67th section. This, however, relates to the signification and employment of the pronouns. We must first consider their formation. In page 62 of the translation we have the following note appended to the inflexions of *hic.* 'The demonstrative force is strengthened by the affixes *ce* and *cine.*' In our edition of the original the last syllable of *hicine* (we prefer Bentley's orthography with the single consonant) is correctly considered to be the common interrogative enclitic. In the same paragraph, on the other hand, (and here the translation agrees with the original,) *istic* and *illic* are deduced from *iste-hic*, *ille-hic*. This error has, perhaps, arisen from not perceiving that the final letter in *hic*, *hæc*, *&c.* is no more an essential part of the pronoun than *ce* of *hujusce*. In the common genitive, and other cases, it disappears, and if we never find the dative without the suffix, still a comparison with *ill-ius*, *ill-i*; *e-ius*, *e-i*; *cu-ius*, *cu-i*; *un-ius*, *un-i*; is sufficient to prove that originally *hu-ius* and *hu-i* were alike legitimately formed. The very striking anomalies in the declination of this pronoun all disappear when we consider the suffix in its true light. The ablative was *ho*, hence *ho-die*. The adverb of *motion towards* corresponded with *eo*, *quo*, *&c.*; hence we have not *hucvorsum* but *ho-vorsum*, contracted into *horsum*. While, in the same way, *illo* and *isto* existed together with

the strengthened forms, *illuc* and *istuc*. So, again, we have *tunc* and *nunc*, but not to the exclusion of *tum* or even *num* (*etiamnum*); we might easily extend the list. Scheller, indeed, in his grammar, refers, though with some timidity, *hic* to *hice*, as *dic* to *dice;* and, no doubt, it was from the same view that Bentley, as above stated by Zumpt, preferred *hicine* to *hiccine*. Throwing aside, then, the aspirate from *isthic*, we may safely conclude, that *istic* and *illic* were formed, not *from hic*, but by the addition of the same emphatic syllable, which is found in *hic*. But independently of this, *iste hic* seems impossible, because it is a contradictory combination. It has been correctly stated by Zumpt, that *hic* is the demonstrative of the first person, and *iste* of the second. For instance, the book you are reading is *iste liber;* the words you have uttered are *ista verba;* Cicero, writing to his friend Atticus, inquires how affairs are going on *istic*, *i. e.* at Rome, where the person he addressed was residing; nay, so completely was this the meaning of the pronoun, that it has descended to the derivative *costi*, in the modern Italian; and a suit, as to the place where a bill was payable, once turned upon this meaning of the adverb. It has been a common error, to consider this pronoun as including the notion of contempt. Dr. Zumpt has justly observed,* that in the courts of law, an advocate addressing his opponent would naturally throw something of sarcasm into his tone, when speaking of anything connected with that opponent. This, however, is a mere accident, beginning and ending with the occasion. As to any general inference, we might as well connect the idea of flattery with it, because we find it in Cicero's fulsome panegyrics, delivered in the presence of Cæsar. In fact, it is employed in the comedians, whatever be the temper of mind subsisting between the parties conversing together; whether it be affection, anger, indignation, surprise, sorrow, or indifference. To dwell on these minutiæ is far from useless. No one can fully appreciate the meaning of a Latin author, without an accurate perception of the distinction between the three little pronouns, *hic*, *iste*, and *ille*. We cannot find a better illustration of this than in the beautiful scene of the Andria, where Pamphilus hurries on the stage exclaiming—

Hocine'st factu humanum aut incepta? hocine'st officium patris?

Mysis, alarmed for her mistress, immediately says, *quid illud est?—illud*, for she is speaking to herself. But when she has discovered herself, and, speaking of the distress in which she has left Glycerium, adds—tum autem hoc timet, ne deseras se; Pamphilus interrupts her with—hem, egone *istuc* conari queam? A few lines after, where he describes

his last interview with Chrysis,—O Mysis, Mysis! etiam nunc mihi scripta *illa* sunt in animo dicta Chrysidis; by attending to these particles, we shall have a much more lively picture of this interesting scene. At the beginning, Glycerium may be supposed to be standing on one side of Chrysis; Pamphilus on the other. First looking at the latter, and then from him to the friendless Glycerium, she begins:—

> Mi Pamphile, *huius* formam atque aetatem vides.

Then turning again from Glycerium, as if she did not wish her to hear the observation,—

> Nec clam te est, quam *illi* utraeque nunc inutiles
> Et ad pudicitiam et ad rem tutandam sient.

In the following line we perceive that Chrysis is grasping the hand of Pamphilus:—

> Quod te ego per dextram *hanc* oro, &c.

The conclusion is still more graphic —

> Si te in germani *fratris* dilexi loco,
> Sive *haec* te solum semper fecit maxumi,
> Seu tibi morigera fuit in rebus omnibus;
> Te *isti* virum do, amicum, tutorem, patrem.

We can here discern the very moment when she resigns her orphan sister into the hands of Pamphilus. She is no longer *haec*, but *ista.*

In Cæsar's writings, where the greater part is simple narrative, and even the speeches are given in the oblique form, we must not expect to meet with the word *iste;* and, accordingly, it is only found, if we may trust the index, in one passage (B. G. vii., 77), where, contrary to his custom, he presents us with a speech in the first person. But, to return to the point whence we digressed, we may now conclude, that the combination *iste-hic* is not less contradictory than would be such a word as *meo-tuus.*

The chapters 37—60, pp. 128—216 inclusive, give the etymological structure of the verb, and will, of course, demand an examination at some length. Our first objection is, that no allusion is made to the more philosophical division of the conjugations adopted in all Greek grammars, and now employed in the small Latin grammar of the Charterhouse—we mean the division into contracted and uncontracted verbs. The more correct name for the same division would be, verbs in which the crude form (that part independent of inflexion) terminates in a vowel, and those in which it terminates in a consonant; contraction is not the criterion, as we see in the forms, *fert, vult.* We believe such a division is preferable even for a beginner: but this is not the question here. In the

present grammar some allusion, at least, should be made to it, if it be but in a note. One great advantage of a natural division over that which is artificial consists in the facility the former affords of explaining, on solid principles, those numerous irregularities which appear in every language. We would even carry the Charterhouse division somewhat farther; nor let it be objected, that in so doing, we make grammars more complicated than they already are. Apparent brevity is not always simplicity. What can be more truly simple than dividing the conjugations according to the Greek system of characteristics? Suppose, then, in Latin we were to assign one conjugation to those verbs, in which a consonant is the characteristic, viz. the conjugation usually placed third in order; and five others to the respective vowels: 1st, *a*, (*amao*) *amo*; 2dly, *e*, *neo*; 3dly, *i*, *audio*; 4thly, *o*, as in the stem *no* or *gno*, whence the perfects *no-vi* and *co-gno-vi*; and 5thly, *u*, (stem *argu*), as in *arguo*. Let us press this system a little farther, and judge of it by its results. If the perfects of these verbs are uniform, they will be *amavi*, *nevi*, *audivi*, *novi*, *arguvi*. The four first are the common forms; in the last, as the repetition of the same vowel was unnecessary, *argui* became the form in common use; but the perfect was still distinguished by the older writers from the present. Thus we have a line of Ennius (Priscian x. 2. Krehl, p. 480.)

Annuit sese mecum decernere ferro.

It may well be doubted whether, even in the age of Cicero, the present *arguit* was altogether confounded in pronunciation with the perfect of the same written form. All these perfects, too, were susceptible of contraction in some of the persons, so that we have no reason to be surprised at *monui*, *habui*. That *habevi* must once have existed, is sufficiently proved by the form of *habessit*, which is contracted from *habeverit*, exactly as *cantassit* from *cantaverit*. Contractions are always more likely to occur in long than short words. Hence *neo*, *fleo*, with a few others, retained the original form, whilst the longer words could afford to spare one of their letters. The examination of the so-called supines would again confirm the simplicity of this system.

To this mode of viewing the verbs it has been objected that if *amat* be really formed from *amait*, the last syllable should be long. The inference is legitimate, and, accordingly, we find in the earlier writers that such is the case. At the beginning of the *De Senectute*, there occurs the line—

Quae nunc te coquit, et versat in pectore fixa—

where, in the old editions, as Graevius observes, some critic, alarmed for the metre, had substituted *sub pectore*. The same editor gives another line, quoted by Priscian, from Livius Andronicus,—

Cum socios nostros mandisset impius Cyclops—

where the long *e* in *mandisset* corresponds with the long vowel in the other persons of the same tense. He refers also to the authority of the grammarian Martianus Capella, for the fact that, in the older poets, '*t finale esse ambiguum*.' This is evidently too indefinite an observation. To the above lines we may add a third, which has hitherto, possibly owing to the apparent irregularity of the metre, been blended with the text of Cicero. *De Officiis, l.* 1, *Ed. Græv. p.* 169.

Si quid dedeceat alios, vitemus et ipsi.

Little stress can be laid on the cæsura, where so marked a pause occurs after the very next word.

A second objection to the proposed division may be founded on the class of verbs, *fugio, cupio, fodio*, &c. This objection, it might be replied, is equally applicable to every division. The true explanation is to be found in the fact that many of the Latin verbs had different forms at different periods of the language, or even at the same period in different places. That *cupio* was looked upon by many as of the fourth conjugation, we have the express authority of Priscian; *cupivi* and *cupitum* are formed according to the analogy of that conjugation; and, in Plautus and Lucretius, we find *cupīs* and *cupīri*. St. Augustin was in doubt whether to write *fugire**. This is far below the age of pure Latinity. On the other hand, in the Marcian prophecy, given by Livy, it has been long perceived that the verses were originally hexameters. The word *fuge*, at the end of the first line, has been altered by some to *feuge*, to complete the metre. Perhaps it would be more correct to read *fugīto*, the more so as the imperative in *-to*, from its more solemn power (arising probably from its greater antiquity), is better suited to the dignified language of prophecy. Lastly, many of the verbs of this termination, *morior, orior, fodio*, &c., are generally allowed to partake of both conjugations.

In the enumeration of the irregular perfects of the 3rd conjugation, Dr. Zumpt has judiciously arranged the words according to the final consonant of the stem, after the manner of our better Greek grammars; throwing those

* It cannot be an accident that in the Italian, French, and Spanish languages, the same conjugation should still prevail: *fuggire, fuir, huir*.

together which are connected with the same organ. Thus c. 49 contains all the gutturals, or those ending in *go, co, ho, quo, cto, guo.* He might have added to the list the isolated verb *vivo*, which has arisen from a stem *vig* appearing again in the words *vixi, victus, vigeo, vigor, vigil;* just as *nivis* is found in connection with *nix, ninguo,* or *ningo,* &c., *conniveo* with *connixi, foveo* with *focus, Davus* with *Dacus,* &c. This change, though extremely striking at first, is no way peculiar to the Latin; but, to understand it, we must recollect the identity of the Latin *v* and English *w*. Lastly, the word *vigo* is not imaginary; we have for it the authority of Charisius—See *Facciolati,* v. *vigeo.* We may add to the same list some other verbs, in which the present has wholly lost its guttural; viz., *fluo, struo, fruor,* &c., the perfects and other derived forms shewing clearly that, in all of these, the original characteristic was a guttural. A partial disappearance of this letter has taken place in *traho, veho.* On the other hand, from the class having a liquid for the characteristic we should wish to except *pono, lino, sino, sperno, cerno, sterno,* and, perhaps, *sero* (to sow). In these words, the liquid no more forms a part of the stem than the *n* in *frango,* or the *m* in *rumpo.* The real stem of *pono* is *pos,* as appears from the perfect and supine, and thus in return is explained the anomaly in the quantity of the present. With regard to the six other words, the radical parts are respectively *li* or *le, si, spre, cre* or *cri, stra,* and, lastly, *se.* Hence, from the three last are regularly formed *crimen, stramen, semen,* to say nothing of the perfects and supines.

In the large class of inceptives given in chapter 52, which is stated to include all the most important, we see no reason for the omission of *cresco, nosco, pasco,* &c., given in a separate list, in the preceding page. It would have been useful also to have had in the same series the deponents *ulciscor, irascor, adipiscor, nascor,* &c. The participles of these are often said to be irregular, whereas they are formed with perfect uniformity, if we refer them to their proper stems, *ulc, ira, ap,* and *na,* or rather *gna,* &c. It is the custom, in nearly all grammars, to give a separate list of the deponents, of the defectives *memini, odi,* &c., and of the specially irregular verbs *fero, volo,* &c. Yet, for etymological investigation, it is desirable to have them united in the same series with the common verbs. Thus, if the perfect *odi* were classed with those which are distinguished by the temporal augment, the short *o* in *odium* would cease to be irregular. By connecting *memini* with the perfects of reduplication, we perceive that the radical part is *men;* the same

as that of *comminiscor* and *commentus*. *Tuli* again would be known to be a reduced form from *tetuli*, the perfect of *tollo*.

In comparing the translation with our edition of the original, we observe that the one has *increbresco*, the other *increbesco*. Perhaps the difference is intentional, as the repetition of *r* has certainly something offensive in it to the ear. The derivation of *mansuesco* from *mansuetus*, which is common to both, is the same as to derive *consuesco* from *consuetus*. An equally obvious error is the derivation of *potus* from *potare*, *potatum*; for here, undoubtedly, the stream of derivation runs directly the other way, *potus* being the participial form of the stem *po*, whence *po-culum*, *po-tor*, *po-trix*, *po-tio*, *po-tus* (-*us*), and in Greek, πω-μα, πε-πω-κα, πο-τος, πο-σις.

At chapter 61 commences a department of etymology hitherto unduly neglected, but now beginning to attract the attention of the German, and we hope of the English teacher also—we mean, what in the German grammars is called by the expressive term *wort-bildung*, or word-formation. The distinction between this part and the common accidence of our grammars is, in fact, altogether arbitrary. We are not entering upon any new principle, but only proceeding one step further in that very system of classification which has been found so useful in the early parts of the grammar. An example will best explain our meaning. We will suppose, then, that *fragilitatem* is given for examination. It may be compared first, with such words as *artem*, *sermonem*, *legem*; of these the nominatives are (arts) *ars*, (sermōns) *sermō*, (legs) *lex*. We infer, then, that the nominative corresponding to the proposed word is (*fragilitats*) *fragilitas*. So far we have not exceeded the inflections of nouns given in all grammars. The next comparison carries us beyond the limits of these grammars, but the process is precisely the same. Thus, *fragilitas* is analogous in termination to *veritas*, *utilitas*, *libertas*, which express, in the substantive form, the qualities of *verus*, *utilis*, *liber*. In the same way, then, is *fragilitas* related to *fragilis*. Again, the termination *ilis* is common to *habilis*, *agilis*, *mobilis* (mov-ilis). And as these are connected with the respective stems, *hab*, *ag*, *mov*, of the verbs *habeo*, *ago*, *moveo*; so is *fragilis* connected with *frag*, the essential element of *frango*. It will surely be allowed that the classification of which we have availed ourselves in the two last steps is fully as important as that borrowed from the grammatical inflexions at the commencement.

Reversing the process, we may start from the stem *frag*, and carry out extensive branches in various directions on the

same analogical system: *fractus, fragilis, fragilitas, fragor, fragosus, nau-fragium, nucifrangibulum, fragmen, fragmentum, fractura, &c.* in which words the general notion of breaking conveyed in the stem *frag* is modified by the several suffixes, *tus, ilis, ilitas, or, osus, ium, bulum, men, mentum, tura, &c.* It is the business, then, of this department of grammar, to classify words with reference to these important syllables, to assign, by induction, the power of each syllable, and to account for those slight modifications which always take place in the combination of certain letters, and which admit of an easy explanation in the general laws of euphony.

To those who are acquainted with the method of instruction employed in Germany in reference to the Greek, Latin, or even the German language, all these explanatory remarks will be familiar, and perhaps fatiguing. To English teachers in general no apology is necessary. It is certainly desirable that every one connected with education should know that this branch of etymology is at once important and simple.

Having said enough, then, to establish the utility of thus extending the field of grammar, we must return to our author, and see how far he has succeeded in the duty he has undertaken. It is evident that the very first step is, to fix precisely upon the stem, to separate it from what is merely adventitious, and here we more than once find the author somewhat hasty. A few instances have already been pointed out. Another remarkable instance occurs in p. 222, where *nomen* is said to be contracted from *novimen*. It has been already stated, that *no*, or rather *gno*, is, both in Greek and Latin, the parent of a large family of words, of which *no-men* is one. A second objection must be made to the arrangement. The terminations, *-ulum, -culum, -bulum*, it is true, have no difference in meaning, and may therefore be brought under the same class; but still it would be better to separate them and arrange them in different columns. When *vinculum* and *operculum* are brought immediately together, the student is very liable to forget that in *vinc-ulum*, as in *jac-ulum*, the *c* belongs to the stem, while in *oper-culum*, it belongs to the termination. In the section on diminutives very considerable confusion arises from the want of subdivision. It is stated, that this class of words is formed generally in *-ulus, -a, -um*, but sometimes in *-ellus*, or *-culus*, or *-olus*, or *-unculus*; but by what circumstances we are to be guided in the choice out of these five variations we are not told. A simple classification would lead to the true grounds of distinction, but Priscian has saved us all trouble. From what he says on this subject, the two following rules may be deduced.

a. If the primitive be of the first or second declension, *-ulus, -a, -um* is adopted; the gender depending on that of the primitive.

b. If it be of the third, fourth, or fifth, *-culus, -a, -um* is preferred.

The exceptions arise from contraction or euphonic variety. If the stem of the first or second declension terminate in *l, n, r*, a contraction *generally* takes place producing the termination *-ellus, -a, -um*, or *-illus, -a, -um*. Thus, besides *puerulus*, we have *puellus;* and the secondary form *puellula*. If it end in *i*, or *e*, then *-olus* is written for *-ulus*. With respect to the other declensions, if the stem end in any of the harsher consonants, *c, g, t, d*, the first termination without the guttural is naturally preferred. If it end in *on*, then *-unculus* is written instead of *-onculus*. As examples of the assistance to be derived from this subdivision, a few of the apparently more irregular words are here given. From *lamina* and *columna* we have *laminula, columinula*, contracted into *lamella, columella;* from *bonus*, or, rather, *benus* (the old form whence *bene, benificium, benivolus, benignus*) we have (*benulus*) *bellus*, expressing the quality of *bonus* in a petty way. Similarly from *unus, ullus;* from *castrum, castellum; Tullia* makes *Tulliola*, not *Tulliula*, just as *violentus* is preferred to *viulentus*, notwithstanding the forms *fraudulentus, opulentus*. In *ratio, rationis*, it is evident that *ratiōn* is the stem; hence we have *ratiuncula*. In *homo, hominis*, the radical part is less distinguishable, as both these cases have suffered alteration. *Homōn* is the real stem (in Ennius we find *hemones*); and from *homon* we have again *homunculus*. The corruptions of *homons*, and *homōnis*, into *homō, homĭnis*, are neither of them extraordinary.

In Zumpt's grammar the apparent difficulties sometimes arise from referring the diminutive to the wrong primitive. Thus, *catellus* is formed, not from *canis*, as Zumpt, and even Priscian have imagined, but from *catulus*, just as *ocellus* from *oculus*. Indeed, from the feminine *canis*, we possess the regular diminutive, *canicula*. Again, the diminutive of *rana* is *ranula*, not *ranunculus*. The great tendency of the Latin language to form diminutives, which is well exhibited in the successive ὄκος (*Hesych.*), *oculus, ocellus, ocellulus*, is the more worthy of notice from the great effect it has had on the vocabulary of the modern Italian, and even the French. We must not omit to note, from Priscian, the termination *-xillus*, adopted for those words whose stems end in *l* preceded by a long vowel. Thus, *paulum, pauxillum; velum, vexillum; mala, maxilla; palus, paxillus, &c.* In the article on adjectives in *-tus*, formed from nouns

without the known intervention of any verb, it is correctly stated, that though *-atus* is the more common ending, a few terminate in *-itus* and *-utus;* but the distinction upon which this variety depends is not given. This distinction turns upon a principle affecting the whole etymological structure of the language. We have already recommended a division of the verbs founded on the nature of the alphabet. The same principle of division may be applied to the declensions. Thus we shall have one declension where the characteristic is a consonant, viz. *rex*, from the stem *reg;* and five others corresponding to the several vowels, viz. *a*, *musa* or *Aeneas;* *e*, *fides*; *i*, *turris* or *mare;* *o*, *avus* (*avos*)*;* *u*, *status*. Our limits will not allow us to develop all the advantages arising from this natural division. The result of such examination would be, that the case-endings were originally the same for all the declensions, and that the varieties have arisen from the combination of the stem vowel with these *postpositions*, as we may call them, of the several cases. Of course, in such an inquiry, allowance must be made for those changes which time produces in every language. The chief novelty of this division arises from the separation of the third declension into two. One advantage of this is the explanation of the prevalence of the letter *i* in certain words of this declension, viz. *turrim*, *turri* (abl.), *turrium*, *turris*. The adjectives *mollis*, &c. (for adjectives are etymologically identical with substantives) will afford similar examples. Hence we see the reason for the marked connexion of this declension in *i*, with the verbs of the fourth conjugation, *mollis*, *mollire;* *tussis*, *tussire;* *sitis*, *sitire;* *lenis*, *lenire*, &c. And lastly, to apply our observations to those words, from the consideration of which we digressed, *auritus* and *pellitus* are the very forms to which analogy would lead; whilst, on the other hand, from *status*, *acus*, *cornu*, *astu*, we have *statuo*, *acuo*, *statutus*, *acutus*, *cornutus*, *astutus*. Neither is *nasutus* a very irregular form, when we consider the convertibility of the vowels *ŏ* and *ŭ*, or *ō* and *ū;* and the consequent confusion in so many words between the second and fourth declensions. The readers of Sallust and Plautus will not be at a loss for examples.

In page 184 of the translation, upon the composition of verbs with particles, we observe a slight inaccuracy: 'so also when *a* consonant follows,' *copied indeed* from the German 'so auch mit folgend*em* consonanten,' but which it is of importance to correct, as the choice of the vowel *e* or *i* generally depends on the very question, whether one or more consonants follow. Thus from *facio* we have, in one

case, *conficio*, in the other *confectus*. The closing paragraph on this subject in the original, and still more the corresponding passage in the translation, we do not comprehend. 'When nouns and verbs are compounded, the second word undergoes more violent changes, which are not capable of being reduced to rules.' In the original the examples given are *artifex*, *pontifex*; *particeps*, *anceps* (*auceps* is intended); *cistifer*, and *aquilifer*; *claviger*, *armiger*: which are said to be formed in a manner 'gegen die oben angegebenen ableitungs-arten.' To our eyes (for it seems matter of eyesight) no words could have been selected presenting less irregularity. The truth is, euphonic changes are made, not with reference to parts of speech; not because such a word is a verb, and such a noun or particle, but strictly and solely upon physical reasons, in consequence of certain vowels and consonants falling together. Thus we have *discerpo*, *artifex*, *iners*, *expers*, *profecto*, *biennium*, *&c.*

We proceed to the division on the particles, which occupies in the original a very considerable space, pp. 239—311. No department of grammar is more worthy the attention of the student, and in none is the system of classification more fruitful in useful results. Though both the original and the translation (we say both, for they by no means correspond), present much useful matter, the contents would be more available to the student, if they had been arranged in a tabular form. As all these particles have a double relation, the classification also should be double, according to the root and the suffix. This would be effected by placing the stems in a horizontal line, and the terminations in a perpendicular column, when each word would thus appear under its stem, and on a level with the qualifying suffix. Thus under the crude form *ali-cu* (*aliquis*) we should find: *alicu-bi*, *aliqu-o*, *alicu-nde*, *aliqu-a*, *aliqu-o-versum*, *aliqu-a-tenus*. On the other hand, one of the horizontal columns would be *eo*, *hūc*, *illo* and *illūc*, *isto* and *istūc*, *eo-dem*, *quo*, *quo-cunque*, *quo-quam*, *quo-piam*, *quo-nam*, *quo-vis*, *quo-libet*, *quo-que*, *ali-quo*, *si-quo*, *ne-quo*, *utro*, *utro-que*, *utro-libet*, *ne-utro*, *alio*, *dextro* (*-versum*), *sinistro* (*-vorsum*), *intro*, *retro*, *ultro*, *citro*, *contro* (*-verto*), in all of which the final *ō* modifies the power of the stem in precisely the same manner. This termination, by the bye, has nothing to do with the ablative. It is more probably to be deduced from an old accusative in *om*; exactly as *posteā*, *intereā*, *anteā* have been formed from *post eam*, &c. the correlatives *postquam*, *antequam*, still retaining the final letter. As the accusative is essentially the case of *motion to*, so the original power of the dative is *rest*. Hence

we are not surprised that the adverbs of rest should be, without exception, the old datives of their respective stems: *ibi* from *is*; *ubi* (originally *cubi*, whence *si-cubi*, &c.) from *quis*, *illi-c* from *ille*, &c.*

A student, with such a table as we have proposed, would soon make himself acquainted with the precise value of the most important words in the language; important, because they enter into the constitution of every sentence. He would learn this portion of the vocabulary with the utmost facility, and would remember it with certainty.

The following sections, to the 68th inclusive, treat of the power and position of the prepositions and conjunctions. These subjects being no way connected with etymological principles, it does not fall in with our present purpose to speak of them.

It has been already remarked, that in the Syntactical part, this work is far superior to the ordinary grammars. It is for this very reason that we have not entered into a particular discussion of that department in the present article. We thought it would be more useful to direct attention to the etymological division of the grammar, which is less exact than it ought to be.

* It is singular that this power of the dative suffix, now so familiar to scholars, and at the same time so essential to the right understanding of the syntax, should never have made its appearance in our grammars, where we still find '*musae*, to a muse,' to the utter confusion of the language. After this fundamental error, we cannot be surprised that the syntax should direct us to translate *at Rome* by the genitive, *at Athens* by the ablative, &c. giving different rules according as the number or gender differ, while, in fact they are all datives. With *Romae*, *Athenis*, there is no difficulty. As to *Benevento*, *domi*, &c. an earlier form of the dative of the second declension was *oi* (*οικοι*) whence arose the double form *nullo* and *nulli*. In the plural the two languages exhibit the same analogy: *δουλοι*, *δουλοις*, in Greek, and in Latin *pueri*, *pueris*. In the third declension a common occurrence has taken place. Our grammarians, instead of forming their rules from the writings of the ancients, have altered their text to fit the rules. Thus our editions often present *Carthagine*, *Lacedæmone*, where the MSS. have the correct dative. It is true that authority exists for the other form; but the change of *Carthagini* into *Carthagine* is precisely similar to the change of *heri* into *here*, *pictai* into *pictae*, and not unlike the absorption of the *i* in the datives of so many declensions, Greek and Latin, *gradui gradu*, *fidei fide*. In the third declension the preceding consonant saved it from total extinction. The commonest effect of time upon a language is to soften away the final letters. Hence *mururis*, *murare*; *egier*, *agi*; *ipsus*, *ipse*; *quis*, *qui*; *fuerunt*, *fuere*; *homo*, *homŏ*; *εγων*, *εγω*; *egō*, *ego*; &c.

EGYPT, NUBIA, &c.

The Modern Traveller.—A popular Description, Geographical, Historical, and Topographical of the various Countries of the Globe. By Josiah Conder. London: Printed for James Duncan, &c., 1827. 30 vols. 18mo.—*Description of Egypt, Nubia, and Abyssinia,* in 2 vols., 18mo. Price 11*s.*

The object of this undertaking will be best explained in the Editor's own words:—

'To give the results of modern discovery, combined with our previous stock of information, in a succinct and popular form, so as to exhibit, at one view, the present state of our knowledge, with regard to each country traversed by European travellers, was the object proposed in undertaking this work.'

The thirty volumes comprehend (as he goes on to observe) 'all the regions of the east, of the western hemisphere, and of Africa, which are accessible to the European traveller; they include, also, a description of eastern Europe, and of the western Peninsula (Spain and Portugal);' but France, Germany, Holland, Switzerland, and Italy, are reserved for another series, as the editor considers, that countries comparatively so well known require a different kind of description.

The volumes on Egypt, which are selected for the present notice, besides containing a topographical description of the country, comprehend a short account of the physical geography, the natural history, the climate, and political history of this singular portion of the globe; and all this information, it should be remarked, is included in two small volumes of less than four hundred pages each.

At the end of the second volume, a list is given of the principal authorities from which the history and description of Egypt, Nubia, and Abyssinia are taken. In the body of the work, also, frequent references at the foot of the page, point out to the student the sources of particular information, and shew him where he may look for more complete knowledge. We cannot help wishing that other compilers of the present day would do the same; it would increase their reputation for candour and fair dealing, though it might somewhat diminish the opinion of their erudition.

There is, perhaps, no one country in the world which presents so many interesting objects of inquiry as Egypt, if we consider its physical peculiarities, its ancient monuments, its political revolutions, and its actual condition. It lies

between the barren regions, that form its eastern and western boundary, a long and narrow slip, fertilized by a river, on whose periodical overflowing depends the very existence of its inhabitants. In all ages it has been the granary of the neighbouring countries, the centre of an extensive caravan trade, and during many centuries, the market in which the products of the eastern and western worlds were exchanged.

In its earliest state, Egypt was governed by native monarchs in alliance with a powerful caste of priests, whose influence, and whose tyranny, are attested by those imperishable monuments, which we still behold with wonder. But it is now nearly twenty-five centuries since a native Egyptian ruled in the land. Since the overthrow of the throne of the Pharaohs, the barbarous Persian, and the more civilized Greek, Roman, and Arab have, at different periods, possessed it, each leaving behind him some traces of his dominion. This country now groans beneath the yoke of the Turk, the heaviest bondage which it has yet experienced. Its future condition is doubtful, and it will, probably, once more change its master, not by the choice of the people, but by the fortune of war.

In the fifth century before the Christian æra, Herodotus of Halicarnassus, by birth a Greek, and most probably a merchant by profession, visited Egypt, which was then under the dominion of the Persians. His description, contained in the second book of his history, has furnished ample materials for modern criticism; it bears the same stamp of truth, honest intention, and simplicity, which characterizes the whole of his work; it is not free from errors, both of observation and of judgment, but it still remains one of our best sources for the study of Egyptian antiquity. The long dominion of the Greeks, which was succeeded by that of the Romans, brought many travellers and adventurers into the country; and, accordingly, we find, in the Greek and Roman writers, numerous incidental notices, together with some particular descriptions of Egypt, such as those of Strabo and Diodorus. Under the Arabs, too, this country of wonders was not without its geographers and historians, whose accounts are often useful and necessary in our topographical inquiries. Modern travellers, of various merit, have added to this stock of information; some by giving us the results of long and patient investigation; and others by an ostentatious display of the little that is to be gathered in a sail up the Nile, and a journey from Kennéh to Cosseir.

It is from this wide field that the editor has undertaken to collect the materials for his two volumes; for though, in many instances, he does not appear to have examined the

ancient travellers and geographers himself, yet he has used the modern books, into which the ancient learning is transferred; his design, therefore, is a *learned* one, notwithstanding the title of *popular*, and the unpretending form in which the 'Modern Traveller' appears. It is also a useful design, having for its object the communication of many valuable facts, that require to be collected and arranged before they can be generally known. The abundance of materials increases the difficulty of the undertaking: where one traveller only has visited a country, there is not much room for difference of opinion, or for dispute; but where many accounts are to be compared, contradictions are discovered, and selection becomes more hazardous.

The etymology of the name Egypt, a word for which we are indebted to the Greeks, engages the editor in a kind of discussion, strengthened by some learned notes, which is rather at variance with the word 'popular' in his title-page, and will not be satisfactory to those who look for a complete dissertation.* He is inclined to suppose that Ægyptus (Αἴγυπτος) is equivalent to Aïa-gyptos, the land of *Gyptos*, or *Kyptos*. It is, indeed, probable that the word Egypt contains the element *Copt*, the name by which the present real or supposed descendants of the old Egyptians are known; but the prefix *Ai* is, undoubtedly, nothing more than a vowel sound, such as is prefixed to many roots, both in Greek and other languages, without adding anything to the signification. Thus the Asiatic name *Frat* became Euphrates in the mouth of a Greek.

For the general physical description of the country, the editor makes use of an extract from Malte-Brun's Geography; and its geological structure he explains by giving another extract of considerable length, from an article in the *Encyclopædia Metropolitana*. It is his general plan to give the very words of various travellers and authors, when their description can be readily jointed into his own; a plan which has this merit,—that it supplies the reader with some valuable extracts, otherwise often difficult to meet with, and relieves the uniformity of a compilation, by the variety of personal adventure, and original description.

The true basis of the history of every country is a knowledge of its geographical features, and its products: the more exact this knowledge is, the better we comprehend both ancient and modern writers. In Egypt this is

* It is, in substance, the same as the remarks in the *Encyclopædia Metropolitana*, on the etymology of the word 'Egypt.'

more particularly necessary. Its agriculture and domestic arts; its ancient, civil, and religious systems, with all its wonderful existing monuments, are the offspring of local peculiarities.

In the granite rocks of Upper Egypt, which extend but a short distance from the island Philæ, as far as Syene (Essuan), we may still survey the quarries which supplied the materials for the colossal statues and the obelisks scattered over all Egypt, from its southern extremity as far as Tanis (San) on the eastern, and Alexandria beyond the western limit of the Delta. The history of some of the specimens of Egyptian skill is curious. With immense labour they were cut, in one solid mass, from the quarries in Upper Egypt, and thence transferred to ornament the towns and temples of the lower country. The Romans transplanted them to Italy to adorn their capital; and in our own metropolis, we can now examine some of the most striking specimens of Egyptian sculpture. Between Syene and Esneh (the ancient Latopolis) lies the sandstone district, which furnished slabs for most of the temples; and beyond this region we find the calcareous stone, which extends to the apex of the Delta, and supplied the materials for the Pyramids. There are some inaccuracies in this part of the work, which should be noticed for the benefit of young readers.

The Editor, while following Malte-Brun in his description of the mountains that hem the river, remarks that at Siout (Lycopolis), the western mountains begin to recede further from the river and extend *southward* to Fayoom. *Southward* is an error, perhaps, of the press; it ought to be *northward*.

It has been observed of the Nile and some other inundating rivers, that the alluvial banks are higher above the level of the water, than the land which lies further from the stream. The depth of the earthy deposit therefore varies: 'it is,' says the Editor, (p. 18,) 'in general about five feet near the river, *increasing* gradually as it recedes from it.' But at p. 42 we find Dr. Shaw quoted to prove that, while the soil near the banks is sometimes thirty feet high, 'at the extremity of the inundation it is not a quarter part of so many inches.' The origin of the error is in the Encyclopædia Metropolitana, where there is, by some odd mistake, *increasing* for *decreasing*; and in this instance unfortunately the Editor has given the facts, the arguments, and the blunder of the original article without informing us of his authority. Hamilton's explanation (p. 295) is short and intelligible: 'throughout the whole of Egypt, the banks of the river, and the lands immediately

adjacent, are much more elevated above the bed of the river, than those further off, owing to the greater deposit of mud.*

There is some difficulty in reconciling antient authors in their accounts of the mouths of the Nile, and of the names assigned to them. The Editor in general keeps close to his Encyclopædic guide, here as on many other occasions. It is surprising that neither of them appears to have made much use of Major Rennel's Geography of Herodotus.

The labours of Major Rennel and D'Anville should not be overlooked by any persons who write on the antient geography of Egypt. In all dubious points these two great geographers will be found the safest guides; and when led astray, it is only where error was unavoidable from the want of proper sources of knowledge.

The writer of the article in the Ency. Metrop. (for it is not possible to avoid speaking of him in connection with the Modern Traveller) begins his description of the Delta by saying, 'at †Bahr-el-Bacareh, (antiently Cercasor*um*,) the Nile divides into two nearly equal branches.' Now nothing is more clearly established than that the apex of the Delta has moved downwards; that the point where the *two* main streams, those of Rosetta and Damietta, *now* separate, is not the point where the Nile, *in the time* of Herodotus, (II. 17.) divided into *three* main streams; and consequently that Cercasorus is *south* of the present head of the Delta, and does not correspond to Batn-el-Bacareh. Major Rennel's arguments are decisive, but cannot be compressed into a few sentences. (See Geogr. Herod. section xviii.)

We can give Herodotus credit for being exact in laying down the three great arms, the Canopic, the most western,—the Pelusiac, forming the eastern boundry of the Delta,—and the Sebennytic, which lay between them: the position of the Bolbitine, and probably that of the Mendesian also, was known to him; *his* Saitic is the Tanitic of Strabo; and *his* Bucolic *may be* the Phatnitic of Ptolemy and Strabo. The writer in the Encyclopædia says that the 'third arm, called the Saitic, (he is following Herodotus,) was the western branch of the Sebennytic, and derived its name from Sais, confounded with Tanis by Strabo.' All this is mere assumption: Herodotus gives us no reason for supposing that the Saitic arm was a *western* rather than an *eastern* branch of the Sebennytic.

* The same phenomenon is observable in those parts of the Missisippi, and its tributaries, that are subject to inundation. See the 'Discoveries made in exploring the Missouri, Red River and Washita.' Washington, p. 186.

† The error in this name is corrected by the Editor, p. 234.

Nor does Strabo confound Sais and Tanis, though he has made many a blunder quite as great; and lastly, how is it likely that the Saitic, if it were a branch of the Sebennytic, would take its name from Sais, a town situated near the banks of the Canopic arm? This confusion has been transferred into the pages of the 'Modern Traveller.' In p. 48, we are told that the Saitic or Tanitic branch issues from the Sebennytic on the *west;* but at p. 51, that the Tanitic arm is *east* of the Sebennytic, (which is quite true,) and corresponds to the canal of Moez. Major Rennel (p. 519) has been led into a mistake by the mistranslation of the words ἔστι δὲ καὶ ἕτερα διφάσια στόματα, &c., Herod. II. 17., but his sagacity detected what he supposed Herodotus ought to have said, and what he really did say.*

Though it is somewhat tedious to enter into these details, it is necessary for the just appreciation of the book before us. The antient and modern descriptions of Egypt are inseparable, and it is desirable to know how far the Editor may be a safe guide to those who study antient Geography. That his compilation will be exceedingly useful to classical students, may be fairly admitted; but it should be read with caution as an authority.

The great wall of Sesostris, extending from Pelusium to Heliopolis, we are told, (vol. i. p. 79,) was in length 187½ miles. This is taken from the Ency. Metropol. (p. 431), where we find the following passage: 'Sesostris, as Diodorus informs us, (I. 57.) carried a wall across the uninhabited country from Pelusium to Heliopolis, a space measuring 1500 stadii, (187½ miles,) exactly the same distance as that mentioned by Herodotus (II. 17.).' There is nothing surprising in this coincidence between an original and a copy: Diodorus copied Herodotus, the Encyclopædia Metropolitana copied Diodorus, or some copier of Diodorus, and Conder copied the Encyclopædia; and all of them are wrong. From the obelisk of Matarieh, which stands on the site of Heliopolis, to the ruins of Pelusium, is about 75 geographical miles in a straight line, as may be seen by the inspection of any accurate map. If we allow with Major Rennel 10 miles more for deviation from a straight line, the road distance will then be only about one half of what is stated in these two modern writers. Major Rennel's explanation of the passage of Herodotus (II. 7.) may be seen in his Geography, p. 18, &c.

* In the same chapter the words ἐς τὸ ὀξὺ τοῦ Δέλτα, &c. are also mistranslated in the Major's quotation (p. 519); and he is led to make some remarks which he would have omitted, had he known the real meaning of Herodotus. Major R., as he tells us in his preface, generally used Beloe's translation, which is often inaccurate.

In examining the Editor's historical sketch it is necessary to bear in mind that it is confined to about one hundred pages, a space much too small for any work professedly written on Egyptian history, yet ample enough to contain a distinct exhibition of the striking facts and different epochs. The chief value of this portion of the work consists in some well selected extracts. Antient Egyptian history, it should be observed, is of a traditional character; it was connected with, and is nearly altogether dependent on the public monuments, on which were frequently preserved little more than the names and titles of kings. With the reign of Psammetichus, and under the free trade system of Amasis (Herod. II. 154. 177. 178.) which brought into Egypt Greeks and other strangers, an era of more historical probability commences.

Whatever success may attend the ingenious decipherers of antient Egyptian writing, it is extremely doubtful whether we shall obtain any very important historical results. If, however, existing monuments can be assigned to their right epochs, a great step is certainly made, and the history of Egyptian architecture and art may receive considerable illustration. But we must be on our guard against the chronologers, who aim at a precision not attainable, and who have erred in converting into *successive* dynasties of *one* kingdom, the contemporaneous annals of *two* or more sovereign states of Egypt. The Editor has made an observation to this effect, p. 86.

An extract from Dr. Vincent's Periplus, comprehending a short view of the commerce of Egypt, and its early connection with the east, (p. 65.) is well adapted to lead the young student to consider history in one of its most instructive forms. That Egypt was at a very remote period a great centre of trade, and the high way of Indian commodities, is proved by the book of Genesis (chap. xxxvii.), where we find the Ishmaelites (the carrying Arabs of the desert) conveying into Egypt the precious spices of the east.

However difficult it may be to assign many particular events of antient history to their exact epochs, it is generally practicable to give them their relative position in the chronological scale. Yet, nothing is more common in carelessly written books, than to find authors and events, belonging to remote and different eras, quoted indiscriminately as belonging to one period. An example of this occurs, p. 86, where the Editor is speaking of the circumnavigation of Africa by the Phœnicians in the reign of Necos, King of Egypt. Instead of making any remark of his own on this wonderful expedition, he gives a quotation from Brewster's Encyclopedia

(Article, Egypt), from which we learn that the authority of Herodotus cannot be doubted, *because* 'in those early times the Phœnicians sailed to Britain for tin; Hanno established colonies on the western coast of Africa; Scylax came from the Indus to the Red Sea; Nearchus passed from the Indus to the Euphrates; and the fleets of Solomon made long voyages in search of gold and precious merchandise.' Note, p. 88.

According to the common chronology, the voyages of King Solomon are fixed at about the year 1000 B.C.: the circumnavigation of Africa by these Phœnicians about 600 B.C.; and the voyage of Nearchus, the admiral of Alexander, is placed about B.C. 325. Setting aside, then, any comparison between the difficulty and hazard of sailing round Africa, and sailing from the mouth of the Indus to that of the Euphrates, the proof from chronology stands thus. A very long and dangerous voyage made in 600 B.C. is probable, *because* one of less difficulty was made B.C. 325, about 300 years later. Just in the same way it is probable that Madoc the Welshman crossed the Atlantic in a crazy ship, and discovered* the northern parts of the new world 300 years before Columbus, as it is said, *because* Christopher Columbus did discover America in 'those early times.'

The introduction and progress of Christianity in Egypt require, as the editor justly observes, a better history than we possess. It is from Gibbon that he gives a brief outline of those early abuses of the Christian religion which filled Egypt with anarchy, her capital with theological quarrels, and the deserts and oases with swarms of hermits. The Editor has not made any extract that could well offend the scrupulous, or undermine the faith of his youthful readers. The general tenor of his own remarks is that of fervent and sincere, though not ostentatious, religious feeling: he reads the narrative of Gibbon with mistrust (as he remarks in a note at the end of the extracts); but, 'after every possible deduction,' he admits 'the substantial truth of his revolting statements.'

The history is brought down to the present time by a sketch of the life of Mohammed Ali, the present Pasha of Egypt. The adventures by which a tobacco merchant has become the tyrant and proprietor of the kingdom of the Pharaohs, are worth recording, as they are characteristic of the unsettled state of the social system in the east, where the condition of slave may be exchanged for the rank of tyrant by any one who has cunning and courage enough to make the attempt. Mr.

* See Herbert's Travels, ed. 1638.

hammed Ali's adventures, and the remarks that follow on the different races of people in Egypt, form the most interesting and best executed part of the historical outline.

We now come to the main subject of the work, the topographical description. The part that the Editor commences with is the Delta, and the city of Alexandria, the antient capital of Egypt. Of the general description of the Delta it is only just to speak in terms of commendation: it offers to a young student, and to those readers who have not time to be students by profession, a great variety of useful information not before collected in any one book. Many of the extracts are well chosen, and taken from books not generally to be found, except in public libraries.

But the modern Delta cannot be described without reference to the ancient Delta, for the associations connected with its localities belong more to remote ages than to later times. Its existing antiquities, wherever they are found, attract our attention, and we are eager to identify the remains of *Sa el Hadjar* and *Tel Basta* with the colossi and sphinges of Amasis at Sais, and the beautiful temple at Bubastis. Even where the traces of cities and temples have disappeared, we labour to assign some probable position to the great works of Egypt, which still exist in the ever-fresh description of the antient traveller of Halicarnassus.

On the route from Alexandria to Rosetta the voyager may sail along lake *Etko*, as Captain Light did, and he will see, near the sea coast, the modern town of *Etko;* but he must not imagine with the Editor (p. 215) that he has discovered the site of the ancient Naucratis, the Corinth of Lower Egypt in the time of Herodotus. Nor can we admit, with the Editor, that *Etko* is probably a corruption of Naucratis. The site of Naucratis must depend on that of Sais, which, there can be no doubt, corresponds to *Sa el Hadjar*, about two or three miles from the Rosetta branch, in lat. 31° nearly. The Editor has collected the various remarks of travellers on the ruins of Sais, or the modern *Sa*, from which we may infer, as he does, that there is both confusion and discrepancy in their accounts. One traveller whom he quotes, whose description is the most minute, we are not inclined to take as a witness. There can, however, be little doubt that *Sa el Hadjar* is an ancient site, and also the site of Sais. The term *El Hadjar* denotes the rock, or ruins, and in the Delta it indicates an ancient town or temple, just as Castri, Poli, and Chester do in other countries. Major Rennel has considered *Sa* as representing the ancient Sais, and *Sa el Hadjar*, which he calls Salhajar, as the representative of

Naucratis; the origin of the error is partly due to the travellers. If Sais be represented by *Sa el Hadjar*, as we believe it is, we know where to place Naucratis. It was not on the coast (Herod. II. 97), but on the river, and as a man sailed from Canobus to Naucratis he would pass Anthylla and Archandrus, in taking the direct line, when the country was flooded. Again, it was in the Saitic nome (Ptolemy; Strabo, Egypt), though Pliny makes for it a separate nome, called Naucratites (v. 9). The description of Strabo (p. 803, Casaub.) clearly shews, that in sailing from Schedia (itself above Canobus) to Memphis, many towns were passed before arriving at Naucratis: the next town to Naucratis is Sais, not on the river, but two schœni* from it. Thus, by the aid of a good map the position of Naucratis may be assigned within certain limits; but *Etko* is at least twenty-five miles from any position that can be fairly supposed to correspond to it. The object of this explanation is to shew that the Editor has not examined the question, and that students of antient geography should not be misled by random assertions.

Another instance of the same hasty decision occurs (p. 234, note), in speaking of the situation of Sebennytus. The modern Arabic name of *Semenhood*, and the identical Coptic term *Sjemnout* (Champollion, Égypte sous les Pharaons, ii. p. 192) are considered by all geographers and antiquarians to be the same as Sebennytus. Some small remains also mark the site. But the Editor can see 'nothing in common' between the Coptic and the Greek name; 'and for the present,' he adds, 'Sebennytus may be assumed to be *Sheibin el koom*.' This assumption has no one reason or argument to support it: even Ptolemy's latitude, which may have led the Editor astray, will prove, when compared with the latitude of Busiris, (the site of which is certain,) that Semenhood is the true position. The student should examine these places in Leake's or Jomard's large map. We omit to mention other instances of similar errors, because enough has been said to put him on his guard.'

A few remarks on the site of Memphis may be useful.

The ancient capital of Misraim, or lower Egypt, was Memphis, built, according to Egyptian tradition, by Mên, their first king. He commenced also the great temple of Hephæstus, or Phtha, which was enlarged and embellished by succeeding kings as late as the time of Amasis. Sesostris, the great Egyptian conqueror, the three hundred and thirty-second in descent from Mên (according to the tradition of the priests,

* Major Rennel (p. 529) has fallen into an error, in saying that Strabo makes Naucratis two schœni from Sais.

Herod. II. 100, 102), erected six colossi in front of this great national temple, two representing himself and wife, each forty-five Greek feet in height; and four statues of his children, each being in height thirty Greek feet. But Amasis made a colossal figure seventy-five feet in length, which was placed in a horizontal position in front of the temple, flanked by two other figures of smaller dimensions. Successive monarchs vied with one another in extending and beautifying this enormous temple, as the Roman pontiffs did in the decorations of St. Peter's at Rome. Memphis was, in the time of Strabo, still a populous city, and next to Alexandria in importance; but so great has been the devastation effected by force*, or by the operation of natural causes, that even its site has been the subject of much discussion. The Editor of the Modern Traveller, following in part the Encyclopædia Metropolitana, has not placed this subject in its clearest light, and his conclusion, that the remains at *Metrahenny* (*Monyèh Rahinéh*) are those of Acanthus, and not of Memphis, is a mere conjecture, inconsistent with known facts. The long explanation or dissertation of Dr. Shaw, which the Editor calls 'a clear and learned train of argument,' (p. 341) contains a misinterpretation of Herodotus, and a fundamental error, in supposing the apex of the Delta to be now where it was formerly. The Doctor also neglects those authorities which are decisive.

Major Rennel's examination of the site of Memphis (p. 494) is one of the clearest and most satisfactory of his numerous acute investigations. His proof is founded principally on Herodotus (II. 97), from which it is clear that the pyramids of *Jizeh* were between Cercasorus and Memphis; and on the Antonine Itinerary, which gives an equal road distance between Heliopolis and Babylon, and between Babylon and Memphis. But besides these, there are various other confirmatory arguments. The merit of Major Rennel's discussion about the ancient course of the Nile, with respect to Memphis and the mountains, is increased by the circumstance of his being ignorant of the Greek language, and his having an incorrect translation of Herodotus (see p. 500) as his only guide; with admirable sagacity he has proved, from an absurd or unintelligible version (p. 502), that the meaning of Herodotus must be that which every ordinary proficient in Greek will readily discover in the original. It cannot be doubted that the position of Memphis has been fixed, with propriety, at Metrahenny; but it must not be understood that anything is affirmed about the extent of this great city. All

* Its stone buildings furnished ready worked materials for such places as Cairo, *Fostat*, &c.

that can be proved is, that Metrahenny is within its limits: and it is some confirmation, that on this spot the French found many remains, and an enormous fist * of a colossus, which it is calculated might belong to a figure forty-eight English feet high, probably one of the colossi of Sesostris.

The Editor (vol. i. p. 341), after speaking of Dr. Shaw's 'clear train of argument,' quotes Edrisi (from the Encyc. Metropol.) as confirming it. To understand the Arabian geographer, it should be premised that the mountain range, east of Cairo, and bordering on it, is called *Mokattam*: south of Cairo is *Fostat*, and a little south of *Fostat* is *Misr el Atik* (old Misr), all on the east side of the river. Abdallatiph (De Sacy, pp. 184, 185) distinguishes *Fostat* from *Misr el Atik*, and so does Mr. Browne (p. 488); but the maps do not. Now when Edrisi says, that *Ain-shems* (Heliopolis) is north of *Fostat*, and that *Menf* (Memphis) is south of it, and that *both* of them are in the neighbourhood of Mount *Mokattam*, it is clear that he supposes the remains of Memphis to be on the *east* bank. Neither the Encyclopædia, nor the Editor has any remark on this error. Again Abdallatiph (De Sacy, p. 184) describes immense remains of Memphis, which filled him with astonishment. He says they are south of *Fostat* and at *Misr el Atik*: if so, they would be on the *east* bank also. But it is evident from the first chapter of Abdallatiph (page 5), that he knew Memphis to be on the *west* bank of the river. Abdallatiph, then, probably writing from memory, transferred the name of old *Misr* to the remains of *Metrahenny*. Whatever may be the origin of this confusion, it should not be copied into modern books without a remark. As to *Misr el Atik*, says Edrisi, it is called Babilonah in the strange tongue: it is, in fact, the site of the Egyptian Babylon. (See Strabo, p. 807.)

The remarks on the site of Memphis have been rendered necessary by the long antiquarian and geographical discussion of the Editor, and with the view of shewing, that in the department of comparative geography the work is sometimes inaccurate and imperfect.

There is another objection which it hardly came within the plan of the 'Modern Traveller' to remove. The descriptions of antient remains †, for example those of Thebes, though minute, and taken from the best authorities, are

* This enormous fist is in the British Museum, room of Egyptian Antiquities, No. 7.

† We recommend those who have read about Egyptian Antiquities, without the aid of plates, to consult the 'Description de l'Egypte,' the 'Travels of Belzoni,' and 'Minutoli.'

almost unintelligible to young students for want of corresponding engravings. How much additional value would have been given to the work even by a few common outlines, may be inferred from one instance. A small engraving (vol. ii. p. 177) of the temple of *Edfou** (Apollonopolis the Great), renders the description intelligible, and presents the reader with a tolerably distinct conception of the general plan of an Egyptian temple.

It would require much more space to examine completely these two volumes of the 'Modern Traveller.' On the second no remarks have been made, but we have read it with attention. So numerous are the objects of inquiry in Egypt, that to review completely a description of the country is almost the same thing as to write a new one. The censure that has been occasionally passed on the present work applies chiefly to one department (but it is a very important one), that of comparative geography, or the assigning of ancient towns to their proper modern positions. Though it is not without faults on this head, and also in other respects, we believe that it will be found a very useful book, both for general readers, and for classical students.

It has been usual to read the best historians of antiquity without any reference to the country which was the scene of events. The consequence has been, that *in general* no studies have been so little attractive and so unprofitable. To understand what is said of a country by any historical writer, we should make ourselves acquainted with its most striking geological and mineralogical phenomena; its characteristic animal and vegetable productions; its climate, soil, and mode of cultivation; and its existing ancient monuments. Let a student, after one weary perusal of the second book of Herodotus, apply himself to the 'Modern Traveller,' and he will return to the antient historian with curiosity stimulated and directed.

A small map of Egypt is prefixed to the first volume, and one of the upper streams of the Nile to the second. They are rather better than maps usually attached to small books, but not a sufficient accompaniment to the description, as many places of some importance are necessarily omitted owing to the smallness of the scale. There is also sometimes a discrepancy between the map and the description, a thing of constant occurrence in books of travels, where the map-maker and book-maker are in general two different persons.

* The student, who has the opportunity, should examine the plates of this temple in the Descript. de l'Egypte. Antiquités. Vol. I. pl. 48, &c. Brit. Museum.

EGYPT.

Ideen über die Politik, den Verkehr, und den Handel der vornehmsten Völker der alten Welt. Ægypter. By A. H. L. Heeren, Professor of History in the University of Göttingen. Fourth Edition, improved.

Of Professor Heeren's volumes on the polity and commerce of the chief nations of antiquity, we have selected for notice that on Egypt, for the purpose of extending some of the views presented in the examination of the 'Modern Traveller,' and adding others that will be useful for students of ancient history.

In the introduction to this new edition the author has explained the general results that have followed from Dr. Young's discovery of the phonetic, or alphabetic value, of certain marks on the monuments and inscriptions of Egypt. It is now well known that Champollion has added considerably to the number of phonetic signs, and that he has discovered several of the names mentioned in Manethon's catalogue, still existing on the temples at Thebes and other places. How much more than this has been really done,* or is likely to be done, may be matter for dispute; but till some further progress has been made in reading Egyptian writing, the interest in the subject will be nearly confined to those who make the antiquities of Egypt their special study.

The two chapters (2nd and 4th) in this volume which treat of the political and religious systems, and the commerce of ancient Egypt, are well deserving of attention, and will form the basis of the following remarks; the long chapter (3rd) on the kingdom of Thebes and its monuments is a separate subject.

It is in the physical peculiarities of Egypt that the author seeks an explanation of the singular character of its institutions, which, considered apart from the localities to which they were attached, would be nearly unintelligible. We cannot, indeed, flatter ourselves that we yet understand the ancient history of Egypt as we could wish to do; but who can doubt that the accounts of Greek and Roman writers ought to be illustrated by a careful examination of the country? The knowledge of the actual topography and antiquities is the key to the written books, which, in their turn, will often throw light on the discoveries of modern travellers.

* See an article in the German Journal 'Hertha,' July 1829, entitled, 'Champollion and Klaproth.'

The rapid sketch of the physical character of the country and its inhabitants contained in the first chapter, is better executed than that in the Modern Traveller, and is a necessary introduction to the discussions that follow.

Prof. H. hazards an opinion (p. 78), partly founded on Herodotus, and on the examination of the localities by the French, that a western arm of the Nile once ran through the *Bahr-belá-má*, or *Waterless river* (included in the ancient Nomos Nitriotes), with which it communicated by an opening in the mountains near Memphis. Future examinations must prove if it is not more likely that a stream once ran through it from Lake Mœris, the modern *Birket-el Keroun*. Heeren does not give a reference to the passage of Herodotus on which he founds this opinion; but, if it be chapter 150 of Book II. (and there is no other applicable), the obvious interpretation of the tradition there recorded is, that a stream once ran from the Lake Mœris towards the *Bahr-belá-má*, and not directly from the Nile.*

The author (p. 79) has committed an error in stating incidentally that the modern town of *Bilbeis* represents Pharbæthus, which, in fact, is north of *Bilbeis*, and has never changed its name, being still called *Pharbeit*. In some maps of Egypt, *Bilbeis* is made to correspond to Phacusa, which also is farther north, and is the modern *Tel-Fakkous*. Whatever ancient position *Bilbeis* may occupy, it does not, at least, represent either Pharbæthus or Phacusa.

The inquiry into the political history of ancient Egypt (chap. 2) comprehends the period from the earliest records to the overthrow of the throne of the Pharoahs by the Persian Cambyses, B. C. 525. It is the theory of Heeren, that the race of people to whom Egypt owed its civilization proceeded from the South towards the North, forming settlements along the banks of the river; and that each new temple thus became a centre, towards which the people, both indigenous and new-comers, would be attracted by a feeling of religion. In this way we may perhaps account for the origin of the Nomes, or divisions of Egypt, and for the difference in the religious rites which prevailed in them. For we learn from Herodotus (II. 42) that in the Theban Nome they abstained from sheep, but were allowed to kill goats: the reverse was the usage in the Nome of Mendes, which was in the Delta. Heeren considers the Nomes as originally so many independent priest states, in which the religious usages would vary with the character of the founders, and would be modified by local circumstances. If a more civilized race entered Egypt from the South, and built their temples, and

* See Hamilton's Remarks, Ægyptiaca, p. 316.

introduced commerce, among a barbarous people; they must have found certain religious usages wherever they formed a settlement; and, as it is not easy to destroy religious notions, which are always so deeply implanted, the priests (as Prof. H. conjectures) must have taken advantage of them, and have cherished them for their own interest. Beast worship was common in Egypt, and yet it varied in different Nomes; in one place, the crocodile was treated with affection and respect; in another he was eaten. Such usages were, probably, prior in their origin to the state system of the Egyptian priests, which would tolerate and adopt as much of the popular religions as would be found convenient or necessary. Thus each Nome retained many popular and peculiar rites, while the higher objects of worship, Osiris and Isis, received universal adoration. (Herod. II. 42.)

That the diffusion of religious systems was closely connected with commerce, is an opinion that the author frequently inculcates and enlarges on in his historical writings. The great temples, both of Egypt and other countries of antiquity, were the centres of religious devotion, and the rendezvous of commerce; just as, at the present day, a pilgrimage to Mecca is both an act of devotion and a journey of profit. It may, perhaps, be difficult to say whether we should consider that the religious feeling has, in general, led the way to colonial establishment, and that commerce has followed—or that the love of gain has been the ruling principle, and that man has carried his religion with him, as a necessary part of his moral constitution.

It is the same in modern times as it was formerly. We who now diffuse our colonial settlements all over the earth, carry with us our religion, and give to it a fixed habitation and a permanency, by the erection of durable buildings. In the history of the early settlements on the American Continent, we find two different principles, the religious and the commercial; sometimes one and sometimes the other, predominant.

The division of castes in ancient Egypt is the most striking part of the political system. When a nation is said to be divided into castes, we mean that the whole population is distributed into certain classes which have a character or occupation that distinguishes them from one another, and which is hereditary. To pass from one caste to another is not permitted: each man has his rank determined by his birth. In such castes as those of the priests and soldiers, the distinctions are striking, and easily preserved;

while, in the inferior castes, the line of separation is more readily passed, as the number of subdivisions may be almost infinite. Prof. Heeren traces the origin of Egyptian castes to difference of origin in the component parts of the population, and to differences in the mode of life, depending on local circumstances.

It may be suggested as a matter for the consideration of those who study the constitution of human society, whether it is *necessary* to suppose difference of national origin, in order to account for the existence of castes, even where these distinctions are most marked and unchangeable. It is easy to trace the rise in modern times, and in civilized countries, of separations among men analogous to castes: the only difference is in the duration of these modern distinctions, which cannot be permanent where the spirit of invention daily creates new objects of use and pleasure, and where the acquisition of wealth is left open to industry. But in Egypt as in Sparta*, improvement was stopped in various branches of industry, by the son being required to adopt the trade of his father, and by all other people being excluded from competition with him. Even where no fixed political or religious obligation enforces it, we see a tendency to this among ourselves. A town of shoe-makers or glove-makers will continue to make shoes and gloves, and nothing else, till invention and change either spoil their trade, or give them a motive for engaging in a new one. According to the author, the caste system could not receive its complete developement till all the Nomes were united into one kingdom; for, till that took place, the warrior caste could not have a peculiar and decided character. The union of the parts into one whole would be followed by the formation of a large body of soldiers.

The Greek writers, from whom we draw our information about the priest caste, only saw the shadow of their former greatness. In the time of Herodotus, foreign conquest had already degraded them, though they still retained the substantial advantages of private property, and participation in the revenues attached to the temples. Each temple possessed lands, from which it derived a rent for the support of the common table, and the maintenance of the corporation (Herod. II. 37). A steward, or bursar (γραμματιστής), probably a priest, would be necessary to look after the property; and, accordingly, we find that Herodotus had some conversation with one at Sais, who seems to have had a turn for joking (II. 28). The greatest establishments of priests were in those cities, which were once capital towns, or royal

* See Herod. VI. 60.

residences—Thebes, Memphis, Heliopolis, and Sais. Not only were the privileges of the priests hereditary*, (that they were allowed to marry, it is almost unnecessary to mention,) but the privileges of the *particular* families were hereditary. The sons of the priests of Memphis would succeed their fathers in the possessions attached to the temple of Hephæstus (Ptha), but could have no claims on the revenues of the temple of Heliopolis. We learn from the book of Genesis (chap. xlvii.), that all the Egyptians, except the priests, surrendered their lands to the king, in the time of the great famine. This, of course, implies, that there were once other landowners besides the priests. It is a difficult question (see Heeren, p. 141) to explain what kind of land-tenure we must suppose after this period; but it seems probable from various passages (Herod. II. 109. Diod I. 73,) which, however, are not without their discrepancies, that we must consider the priests as enjoying the con plete property of their lands, and the king as the owner of all the rest. Each soldier of the warrior caste, the next in rank to the priests, had a certain quantity of land assigned to him, and other emoluments, also, when he was in attendance on the king (Herod. II. 168). The rest of the people held their lands on condition of paying annually a certain sum, or part of the produce (II. 109), but, probably they had only the possession, and not the property of the lands which they cultivated. Besides the castes of warriors and priests, Herodotus (II. 154) names the herdsmen, or cattle breeders, probably partly Nomadic; the swineherds, genuine Egyptians, but held in abomination by all the castes, and excluded from all intermarriage and connexion with them (Herod. II. 47); those who followed trade; the interpreters; and the boatmen of the Nile. The division of Diodorus (I. 64) is not the same, but the differences are unimportant in a general view of the subject. The whole of this second chapter 'On the Political condition of ancient Egypt' should be carefully read by students of ancient history, who will find in it a great deal of useful information, which cannot be compressed into a few pages.

The fourth chapter is on the 'manufacture, or arts, and commerce of Egypt.' We shall briefly mention some of the principal native products and manufactured articles which entered into ancient Egyptian economy and commerce. It is not from written books alone that we learn what proficiency the Egyptians had made in the arts; the evidence of

* Examples of hereditary priesthood, to which property or profit was attached, may be found among the Greeks. Herod. VII. 153, III. 142.

their skill exists in those imperishable monuments also, which may be considered as their national archives. The temples of Thebes, Esneh, Denderah, and Edfou; and the painted grottoes of Eileithyias, and Beni Hassan (Speos Artemidos) contain information that books do not give.

The painted reliefs in the grottoes of Eileithyias, represent all the most important occupations of daily life, agriculture, fishing, hunting, navigation on the river, and traffic in the market; and in the tombs of Beni Hassan, the weaving of cloth, and net-making, are easily recognized*. According to Exodus (ix. 31, 32), if all the names are correctly translated, wheat, barley, rye, and flax, were then grown in Egypt. Wheat and barley, and also flax, with the way of preparing it, may be seen on the walls of the grottoes. The fine linen of Egypt was used in the time of Joseph, and was an article of commercial exchange in the reign of King Solomon, as well as at a later period when Herodotus wrote. The Greeks exported wine to Egypt, and among other things received linen cloth in return. (Herod. III. 6. II. 105.)

Pliny says (XIX. 2.) that cotton was cultivated in Egypt, and from the passage we may infer that he thought the ancient priests of Egypt had their clothing made of it. But Pliny's evidence must never be taken without examination: he laid his hands on all books that came in his way, and often copied without reflection. Herodotus calls their garments (λίνεα) linen, and as he has another word to signify cotton, his evidence is against the early cultivation of this plant. He calls cotton what the Germans do, baumwolle, or tree-wool, (εἰρίον ἀπὸ ξύλου, III. 47. 106), and assigns it to India as its native place. When he describes the coat of mail or quilted jacket which Amasis sent to the Lacedæmonians (III. 47), of which cotton forms a part, he speaks of it as a rare thing. If it be true, as Heeren remarks (p. 357), that the swathings of the mummies are generally cotton cloth, the question is decided; but the few specimens that we have seen are linen. If the representation of the cotton plant could be found on the painted walls, this also would be decisive evidence in favour of the early use of cotton among the Egyptians †.

The Nile produced several water plants that formed important articles of Egyptian economy; they are described in Herod. (II. 92), two kinds being named lilies (κρίνεα), and the third the Byblus.

* See Minutoli, Pl. xxiv. 2.; Hamilton, p. 92, &c., for the interesting description of the grottoes.

† The word βύσσος, used by Herodotus and others, is considered to mean cotton. But can this be proved satisfactorily? See Pausanias' description of βύσσος.

The first mentioned species (the Nymphæa Lotus) has a head or top, containing kernels, that were bruised and made into bread; the root too was eaten. This species is still found in great quantities about Damiat, and, according to Savary (quoted by Heeren), is still used for food. The second species (Nelumbium Speciosum) also produced a head full of kernels, like those of an olive, that were eatable. Both kinds are represented in the tombs *; and the leaves and calyx are recognised as ornaments in Egyptian architecture.

But the Byblus, the third plant, had more extensive uses. Its root was eaten like that of the Lotus, while the upper part, as Herodotus remarks (II. 92), was applied to other purposes. What these were we must collect from various passages. We learn (II. 37) that the priests had shoes made of it; and that it furnished the boats of the Nile with sails and cordage. It was manufactured also into a writing material, which possessed, at least, the advantage of durability, as we find specimens of it still existing, brought from the catacombs of Thebes. That so useful a commodity would be an article of commerce we may readily imagine, and we have the testimony of Herodotus (V. 58) to its early use in Ionia. The priests also preserved on it their genealogical tables. It was from a papyrus roll that the priests of Memphis read to Herodotus the long list of their ancient kings. (II. 100.)

Pliny tells us (XIII. 11. on the authority of M. Varro) that the use of the byblus as a writing material was not known before the occupation of Egypt by Alexander, which piece of information is of the same character with a great deal more that is believed on Pliny's authority.

The olive was not cultivated in Egypt when Herodotus was there. For their lamps they used the oil made from the syllicyprium (called by the Egyptians *kiki*), the Palma Christi. As to the vine, though Herodotus speaks of wine being imported into Egypt, we find the representation of the vine as an architectural ornament, and also wine-making represented in the paintings of Eileithyias. The vine now grows abundantly in the *Fioum*, and probably is indigenous there.

Egypt was a great cattle-breeding country, as we may infer from there being a nomadic kind of caste that derived their distinctive appellation from this occupation; the ox also is represented on the grottoes of Eileithyias, as employed in drawing the plough.

It was from Egypt, too, that Solomon (II. Chron. chap. ix.)

* Belzoni, Plate 2.

procured horses for his numerous cavalry. These animals often appear on the existing monuments with all their trappings and decorations *, and with them also the mule and the ass.

The history of man is connected with that of various animals, which he has made subservient to his use and pleasure; and among those which in Asia and Africa are the most indispensable, we must reckon the camel. It has been maintained by some critics, and the opinion has been transferred into popular works, that the camel was not used or known in Africa before the Arab conquest. Heeren's arguments and facts appear to establish the contrary. Camels were known in Egypt as early as Joseph's time, as we learn from the book of Genesis (xii. 16); they are distinctly represented on an obelisk at Luxor † (Thebes), though this has been denied; and if the camel was well known in Egypt at so early a period, it is quite incredible that it was not used in the extensive African traffic ‡, of which Thebes was once a centre.

Camels would not be bred in the Delta or along the Nile, but among the nomadic tribes, between the river and the Red Sea, where the Ababdé Arabs of the present day still breed them for the market of Esné; and we think that Professor Heeren is right in interpreting Herodotus (VII. 69, 86, 87), as indicating, by the Arabs mounted on camels, the Arabs of the regions now occupied by the Ababdé.

It is not necessary to do more in a notice of the work like the present, than to explain its general character, and to show more particularly by some specimens what is its design, and the way in which it is executed. To point out, too, to the numerous students of ancient history the various facts, instructive as well as amusing, which in ordinary education are too much neglected, is another legitimate object of such a notice. Much beyond this cannot be done, without stretching out our remarks to a most unreasonable length.

Professor Heeren has said nothing about glass, which is found on some of the mummies in the form of small beads; and larger fragments also, generally of a blue colour, may be seen by those who are curious. Whether it was made in Egypt, or imported from Phœnicia, is a question for discussion. Some critics have supposed, and the interpretation is

* See the Description de l'Egypte.

† Ibid.

‡ Heeren says (p. 365), that even if the camel were not found on the monuments, it would not be decisive against his opinion; and he instances the ass, as an animal known to the ancient Egyptians, but not represented. Hamilton (p. 94) mentions the ass among the animals in the grottoes of Eilethyias.

a fair one, that the ear-pendents of the crocodiles, mentioned by Herodotus (II. 69), were of glass.

The present volume differs considerably from the earlier editions, and has been remodelled and improved, with the aid of the numerous works on Egypt that have from time to time made their appearance. A map of Egypt, as far as the second cataract, and a plan of Thebes, both by O. Müller, the author's friend, are inserted in the volume. The map has no further pretensions than to be an aid in making the general remarks intelligible, and is not put forth as any thing complete: for the purpose for which it is intended it is sufficiently exact. Several appendixes on matters connected with the main subject are added to this volume; and among them, one on the ancient caravan routes of Africa. This is a branch of historical inquiry which Professor Heeren seems to dwell on with pleasure; and though we willingly admit that he has in some cases pointed out commercial roads hitherto neglected by geographers and historians, it is a fact equally undoubted, that he tortures his authorities beyond all the limits of mercy, till he has extracted from them the evidence that he is determined to find.

A more signal instance cannot be quoted than his still persisting (p. 439) to make the Nasamones of Herodotus (II. 32) cross the Great Desert, and visit the banks of the river Joliba, the mis-named Niger, and the fruitful source of so many learned dissertations and blunders.

NOTICE OF SOME TABLES OF DIFFERENT SPECIES FOR FACILITATING CALCULATION.

From the time when mathematics began to be applied to practical purposes, the utility of tables for the purpose of facilitating calculations must have been felt. We find both among the Hindoos and Greeks, attempts at the construction of such tables for trigonometrical purposes. In modern times, especially after the invention of the art of printing, the practice of making tables for reference gained ground. Various means of expediting calculation were discovered, to some of which this article will refer. The invention of logarithms turned the whole attention of mathematicians to this new discovery, and threw all other methods into the shade. Such was the comparative ease with which enormous calculations were performed by means of them, that men

seem not to have considered that other tables might still be useful, and even preferable in particular cases. Nevertheless, such is the prominent importance of logarithms, that in noticing the different works which form the subject of this article, it will be advisable to give them the first place. We proceed to a short examination of three different tables, which have lately appeared in France, England, and the United States of America.

Bagay, *Nouvelles Tables Astronomiques et Hydrographiques*, &c., 4to., Paris, Firmin Didot, 1819.

This work, which is valuable to the calculator of every description, commences with an elementary explanation of the doctrine of the sphere, accompanied by trigonometrical formulæ, examples of their application to spherical trigonometry and astronomy, and an explanation of the instruments employed in nautical astronomy. This is followed by a large collection of astronomical tables, including all which can be useful in nautical operations. Of these it is not our purpose to speak, as we shall confine ourselves to the tables of logarithms, which occupy the main body of the work. The logarithms of all numbers of four places are given to seven places of decimals, the last two being marked off by a full stop. The logarithms of numbers of five figures are also given as far as 21600. This table is less extensive than those in common use, but is amply sufficient for astronomical purposes, in which the logarithm of a number is rarely taken, except as the sine, cosine, &c. of some arc. The first column is accompanied by a characteristic, which appears useless to the proficient, and rather likely to mislead the ignorant.

A table for converting minutes into seconds, &c., is annexed. The largest part of the work consists in the logarithmic sines, cosines, tangents, and cotangents, which are given for every second, in a manner very similar to the table in Taylor's Logarithms. There is, however, one improvement; the change in the third figure of the logarithm, when it takes place in the middle of a column, is denoted by the cypher (the fourth figure) being filled up and encircled by another, leaving a white space between, which renders the place of the change remarkably conspicuous. An improvement is introduced also in the method of correcting the errata. In place of marking the correction with a pen, a separate sheet is given, in which all the squares which contain an erratum in the work are reprinted correctly. Out of this sheet the squares are to be cut and pasted over the corresponding squares in the work. Many may smile at the men-

tion of such minutiæ, as they may think them; those who are used to calculation know that these little things often constitute the difference between good and bad tables.

The whole work is well and clearly printed, and, considering the great quantity of tabular matter contained in it, is exceedingly cheap. It well deserves the advantageous report made upon it by a commission of naval officers to the French minister of the marine, by which it is accompanied.

Babbage, *Table of Logarithms, &c.*, 8vo. Stereotyped. London. J. Mawman, 1827. Callet, *Table of Logarithms, of Sines and Tangents, &c.* 8vo. Stereotyped. Paris, Firmin Didot, 1795. Reprinted, 1827.

This work was prepared, we believe, for the use of the Irish Survey. The preface shews that the first volume, containing the logarithms of numbers, has been examined with extraordinary care, and contains the result of observations and experiments upon the best method of printing tables. This is a subject to which sufficient attention has not been given. At present the consulting of different tables is like reading books in different languages, each must be learnt by itself, so much do they differ in those arrangements, to which the eye must become accustomed before a table can be used with facility. The authority of Mr. Babbage, who has evidently paid great attention to the subject, ought to produce a uniform custom in this respect.

We annex the general rules at which he arrives, in the hope that their circulation may tend to promote this object.

1. The clearness or facility of reading does not depend on the size of the type alone, but on the proportion of the type to the interval between the lines.

2. Figures of the same, or nearly of the same height, are preferable to those on which some of the digits rise above and others fall below the line.

3. The lines dividing vertical columns should not be placed in the middle of the space between the columns, but should be nearer the preceding column.

4. When some parts of a table are to be separated from the rest more decisively than by the ordinary lines, a single dark line is much more conspicuous than two fainter lines adjacent to each other, and if necessary for further distinction, another and much darker line may be employed with success.

5. Those figures which are first sought on entering a table, ought to be so distinguished, either by position or by magnitude, as to strike the eye readily.

6. In most instances it is better to print the figures denoting the tens, the hundreds, or the thousands, although they may remain the same for several lines.

7. Whatever mode may be adopted for marking the change of the third figure, it ought to be of such a nature that if the four last figures of any logarithm be selected in the middle or in any part of a page, it shall be immediately visible without reference to any other part of the table, whether the third figure has changed or not.

8. Whenever additional information can be communicated in a table without increasing its bulk or adding much to its expence, it ought always to be given, unless it is of such a nature as to distract the attention too much from the part most frequently used.

9. The different tables in a volume ought to be distinguished from each other by the art of the printer, in such a manner that every one may, from its peculiarity, be readily distinguished in turning the pages over rapidly.

10. The impression of the figures on one page should not be reversed on the opposite.

11. The paper should not be so transparent as to permit the figures on the reverse side to appear through.

12. Coloured paper is more favourable to distinctness than white.

These maxims are practically illustrated in the tables which follow, and their truth is most apparent. The work is printed on yellow paper, which adds to the distinctness and saves the eyes from too much light. The change of the third figure is denoted by making the fourth figures to the end of the line in which the change occurs, smaller than the rest, by which all possibility of mistake is prevented. In the logarithms, which are as usual to seven places, wherever the last figure has been increased in consequence of the succeeding figure being greater than 5, a dot is placed under the last figure, which is useful when six places only are wanted.

The logarithms of sines, tangents, &c. which accompany this work, and which are a reprint, obtained from France, of the well known logarithms of Callet, though tolerably clear, present a striking contrast with the volume which we have just examined. No better proof could be desired of the truth of the maxims which we have quoted, than a comparison of the two volumes of this work. The logarithms are given to every ten seconds, which renders these tables nearly equal to Taylor's in the facility with which the logarithms of the intermediate seconds may be found. The first five

degrees are given to every second. On the whole a most valuable benefit has been conferred on calculators by the publication of these volumes, both as regards the tables themselves, and the model which the first volume furnishes for future undertakings of a similar kind. A remarkable circumstance accompanied the correction of this work. In looking over the various tables which have been published during the last century, Mr. Babbage discovered that there were certain errors which ran through them all, thereby proving that they have been copied from one another. On examining the Chinese tables, to which a high antiquity was imputed by some, the same identical errors were found.

Hassler, *Logarithmic and Trigonometric Tables, in a pocket form.* Duodecimo. New York. C. G. and H. Carvill. 1830.

If the reader should imagine that this volume is similar to the little tables of Lalande he will be greatly mistaken. It is by a reduction of the type, not of the matter, that the work is so compressed as to acquire the title of a pocket-volume. The contents will shew that these tables are in several parts more extensive than those of Hutton or Sherwin. They are as follows :—

Introduction.
Useful Numbers and Formulæ.
Trigonometric Formulæ.
Tables of Common Logarithms from 10,000 to 100,000.
„ Logarithmic Sines and Tangents to every Second of the First Degree.
„ ——— Cosines and Cotangents to every 30″ of the First Degree.
„ ——— Sines, Cosines, Tangents, and Cotangents, to every 10″ for the Second and Third Degree.
„ Sines, Cosines, Tangents, and Cotangents, for every 30″, from 3° to 90°.
„ Natural Sines to every 30″ for the whole Quadrant.

The type is very small and clear, and the single figures are remarkably distinct. When the third figures change in the logarithms of numbers, the line is discontinued, and the remaining four figures are removed below so as to stand opposite to the first three figures to which they really belong. This we cannot call an improvement, as it gives the page a broken appearance, especially at the beginning of the logarithms, and interferes with the division into decades, which furnishes so much assistance to the eye in the ordinary tables. In the logarithms of sines and tangents, where this innovation is

not necessary, there is a remarkable accession of clearness owing to the equal intervals at which the blank spaces occur. As the whole is stereotyped there is no hope of seeing this inconvenience remedied in a subsequent edition, which is to be regretted, as the work is highly valuable, and its publication is an æra in the history of logarithmic tables.

Of the sines and tangents, having given the table of contents, it is only necessary to remark, that the differences are those which correspond to 10″ instead of 30″, the interval of the tables, by which some trouble is saved in supplying the intermediate seconds; in the natural sines this difference is given to one more place than could have been found from the tables themselves.

The title-pages at the heads of all the different departments of the work are printed in Latin, English, French, German, and Spanish. It would be advisable to adopt this method in all books of the same nature.

In the title-page it is asserted, that the errors of former tables have been corrected. It would have been well had the author published those which he found; their appearance would have been a guarantee for the accuracy of the work, and would have enabled others to correct their own tables.

It is gratifying to see science, both theoretical and practical, cultivated and enlarged by those who, though politically separated from us, are still in language, manners, and habits our countrymen. The present work is one out of many which prove that the impulse which is extending scientific knowledge over Europe has also produced its effects in America. The translation of the *Mécanique Céleste*, by Dr. Bowditch, of which the first volume has appeared at Boston, is a proof of the spread of a theoretical taste, while the present work would shew, if the state of America as a new country did not render the proof unnecessary, that practical application is not disregarded. Both the works which we have mentioned are necessarily of a very expensive nature, and could not have been undertaken in a country where but little encouragement was afforded to scientific pursuits.

Pre-eminently useful as are the tables of logarithms, they do not always furnish the readiest method of arriving at a result. In cases where the operations are simple, such as multiplication, division, and the extraction of the square root, and where many decimal places are not requisite, the application of logarithms is too slow. Attempts have been made to supply their place in particular instances, by facilitating the operations of arithmetic. The Germans seem to have

taken the lead in this department. We shall, as before, give short notices of two or three works which appear to us well adapted to the wants of the calculator.

Hutton, *Table of the Products and Powers of Numbers.* Published by order of the Commissioners of Longitude. Folio, London, 1781.

This work contains: 1. The products of all numbers up to 1000 × 100. By this table multiplication and division, as well as all the other operations of arithmetic, are materially facilitated, since numbers consisting of three and two figures can be multiplied together by mere inspection of the table, and more extensive multiplications may be readily performed by dividing the multiplicand and multiplier into periods of three and two figures. In this table much room is lost from want of attention to a circumstance which will be mentioned when we come to speak of Crelle's tables. All the products are written at full length, by which many needless repetitions are made. 2. The squares and cubes of all numbers as far as 10000, and the squares alone as far as the square of 25400. By means of this table, four figures of the square of any number may be found by inspection, or five figures, if the two first figures of the root are not more than 25. By using the difference, four or five more figures are obtained, as is explained in the introduction. 3. The first ten powers of all numbers up to 100, by which the formation of the same powers of higher numbers is facilitated. 4. Tables for the reduction of weights, measures, &c. This volume has been superseded by various works of greater extent published on the Continent, excepting in the table of squares and cubes, which, as far as we know, is the largest of its kind.

Crelle, Dr. A. L., *Rechentafeln*, &c. 2 vols. 8vo. Berlin, 1820.

This work is an enormous multiplication table, including all products up to 1000 × 1000. A table perfectly similar in its contents appeared in Germany in 1610, under the title of 'Tabulæ Arithmeticæ *prostaphereseos* universales,' &c. which may have been the foundation of the present work. We take as an example of the arrangement, a part of the page containing the products in which 50 is a factor.

50	0	10	20	30	40	50	60	70	80	90	
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..
8	4	54	104	154	204	254	304	354	404	454	00
9	4	54	104	154	204	254	304	354	404	454	50
11	5	55	105	155	205	255	305	355	405	455	50
12	6	56	106	156	206	256	306	356	406	456	00
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..

Suppose it required, for example, to find the product of 50 and 612. On turning to the page headed 50, look in the column marked 60, and opposite to 12 will be found 306. These are the first three figures of the product; the remaining two, viz. 00, are in the last column, and 30600 is the product required. The two last figures are put in a column by themselves, because an alteration of the hundred's figure in one factor does not alter the units or tens of the product, and the same two figures therefore recur in the products 50×12, 50×112, 50×212, &c. It will be observed that 50×10, 50×110, &c. is omitted, and that from 50 multiplied by 9 we go to 50×11, and so on. In multiplication this is no disadvantage, but in division it causes serious embarrassment. Suppose, for example, 50 being the dividend, one of the remainders is 10501. The next least product in the tables is 10450, or 50×209, but this being at the place where the passage is made, it is necessary to see whether 50×210 is not less than 10501, to do which by the table the eye must find out 50×21 and annex a cypher. The additional products would have taken very little more room, and the want of them is a serious defect in a work, which, nevertheless, will be found extremely useful.

Gruson, *Pinacotheque, ou Collection de Tables, &c.* Berlin, 1798.

The idea of these tables is rather singular. They consist of a series of numbers so placed as to indicate what quotient and remainder they give when divided by other numbers. Any number under 100, or any prime number under 400, being taken for a divisor, the quotient and

remainder of any number under ten times the divisor can be found. The following example, where the divisor is 4, will show the arrangement.

	0	1	2	3	4	5	6	7	8	9
	0	4	8	12	16	20	24	28	32	36
	1	5	9	13	17	21	25	29	33	37
4	2	6	10	*14	18	22	26	30	34	38
	3	7	11	15	19	23	27	31	35	39

*Here any number, under 40, being taken, must be found in the table. At the top of the vertical column in which it stands will be found the quotient; at the left extremity of its horizontal line we see the remainder. This table greatly facilitates multiplication and division, particularly the latter, in which, when the divisor is in the table, the quotient to any extent is written down out of the table without the necessity of putting down one subsidiary figure. In an Appendix are placed all the numbers less than 105,000 which are not divisible by 2, 3, or 5, with their divisors; so that when a dividend is not in the tables, division may nevertheless be performed by dividing by each of the prime factors of the dividend, which factors are found from the Appendix.

The Elements of Arithmetic. By A. De Morgan, Professor of Mathematics in the University of London. London, 1830.

The study of mathematics is now generally considered to form a valuable and almost necessary part of education, not merely on account of the important results which may be deduced from it, but for the sake of the mental discipline which it supplies. It would seem a natural consequence of this general belief, that the earliest opportunity would be taken to gain at least some portion of this incidental advantage; or, at all events, that a study capable of being thus used, and rendered necessary by other considerations at an early period of education, would not be prosecuted in such a manner as to destroy, almost entirely, the collateral benefits which might result from it. This however is the case with the study of arithmetic, as usually conducted in this country. From considerations of convenience, it does generally form one of the earliest branches of education, and it may be so

conducted from its very commencement as, without any increase of labour or difficulty, to exercise exactly the same faculties, and discipline the mind exactly in the same manner, as the other branches of elementary mathematics. In general, however, these collateral benefits are entirely sacrificed by the method of instruction which is adopted, and the student only learns a set of rules by rote, and acquires a certain mechanical quickness and dexterity in performing the operations required, without gaining any notion of the simple principles on which those operations depend, and consequently without any exercise of the reasoning powers by which those principles are comprehended.

It is not difficult to assign a reason for this seeming anomaly. Facility in performing the operations of arithmetic is necessary to men in almost every rank of life; and some knowledge of arithmetic therefore forms an important part even of the lowest education. It is possible, however, to attain and communicate practical dexterity without understanding the principles of the science; and, accordingly, consideration of them is not *necessary* even for a teacher of the practical rules of arithmetic. These teachers, from the universal demand for this knowledge, must be numerous, and the great mass of them are not likely to bestow any attention upon the subject, beyond that which is absolutely requisite to enable them to give the instruction which they promise. The books of arithmetic composed by such teachers, or circulated among them, are naturally, like their oral lessons, a mere collection of rules and examples, without any notice of the principles on which they depend: yet, although thus deficient, they are found to answer their professed object, for practical facility in performing the operations of arithmetic is obtained. And nothing more has generally been sought for; partly because the importance of introducing mathematical considerations into education has not always been as generally recognized as it now is, and partly because, even now it is not generally known how early they may be introduced, and how completely, and with how much benefit to the prosecution of the science itself, even the earliest stages of arithmetic admit them. To men of science this has been familiar, but they have not always been in the habit of applying their acquirements to the service of the unlearned. Indeed the very circumstance which ought to have pointed out to them the expedience of conducting this elementary study in a philosophical manner, the identity, namely, of the reasonings involved in it with those familiar to themselves in a more advanced stage of science, may in some cases have

hindered them from introducing such an improvement, from a notion that a mathematician acquired all the principles of arithmetic as particular applications of the more general principles of algebra, and that to all others, nothing but the practical use of arithmetical rules was of value.

It is however to those who are unlikely to prosecute a scientific education, that the earliest introduction to mathematical reasoning is most important, for it is probably the only one which they can have: and to them therefore, even more than to others, Professor De Morgan's treatise will be a very valuable acquisition, as furnishing them, while they acquire necessary knowledge (for the treatise is purely elementary in its character), with the means of exercising their faculties exactly in the same way, and with the same kind of profit, as they would in more advanced mathematical investigations. It is of importance that the opportunity thus afforded should be generally known; and it is therefore to be regretted that the author has himself rather understated the degree in which his work is capable of supplying the advantages in question.

'In order to avoid the generalities of algebraic language, which the mind of a beginner cannot grasp, it is necessary to confine each demonstration to one particular case; that is, to show, on some particular numbers, those truths which, in algebra, are asserted of all at once, by means of letters employed to stand for numbers. From the case which is chosen, a rule is drawn, which is assumed to hold good always. This reasoning is not strictly logical; but it must be recollected, that the student has it in his power to convince himself of the universal truth of what is stated, by employing different numbers from those used in the text, in every demonstration. This is what I recommend him to do: if he omits this exercise, he does not give the subject a fair trial.' Preface, pp. iii. iv.

In a large proportion of instances, the correctness of the reasoning adopted admits of proof without recurring to the numerous experiments thus recommended; and wherever any other proof can be given, that tentative proof is not the best. The true proof consists in showing that the reasoning is entirely independent of the particular numbers employed in the illustration: if so, the result is a necessary truth; if not, it is merely accidentally true, or at least, the learner is not warranted in concluding it to be otherwise. For instance (we quote from Art. 77), 'If one quantity measures two others, it measures their sum and difference. Thus 7 measures 21 and 56. It therefore measures 56 + 21 and 56 − 21, or 77 and 35. This is only another way of saying what was said in ([illegible]).' On reference to the first part of the article

(61) cited, we find this to be a *necessary* truth, depending on the manner in which these numbers are formed. The truth, indeed, is rather implied in the example given, than distinctly stated or demonstrated; but still it may easily be deduced from considering it. On the other hand, the latter part of the same article furnishes an instance, that it is not necessary that a number measuring the sum, should also measure the parts of which it is composed. Thus, although if 77 be divided, as before, into 56 and 21, or into 49 and 28, &c., each of these parts, as well as the number 77 itself, will be measured by 7, this is a merely *accidental* truth; if the parts taken were 57 and 20, 55 and 22, 54 and 23, &c., it would not hold good.

The distinction is a very plain one; but it is of great importance, and should be more prominently stated than it is in Professor DeMorgan's treatise. If it is attended to, in most cases the reasoning by which the general rule is established *is* 'strictly logical:' just as much so as in any demonstration of geometry, where the proof is conducted by reference to a particular figure, but the reasoning is quite independent of the particular proportions of the lines or angles contained in it. Thus the rule for *borrowing*, as it is called, in the case of subtraction (which is explained with remarkable clearness in Art. 35, 36), is deduced strictly from the general principle that 'the difference of two numbers is not altered by adding a number to the first, if you add the same number to the second:' the example, by means of which it is deduced, is of no use whatever in the proof, except by giving instances of the necessity and manner of applying the principle, and it is perfectly clear that the principle does not at all depend on the particular numbers used, but applies wherever a figure in the subtrahend exceeds the corresponding one in the number from which the subtraction is to be made. Again, the proof (in Art. 43) that the product of the first of two figures by the second is equal to the product of the second by the first, does not at all depend on the particular figures, 6 and 7, used in the statement of it, but follows necessarily, in the manner in which the demonstration is conducted, from the consideration that in whatever order you reckon the same collection of objects, so that in all cases you reckon them all, and do not reckon any of them more than once, the number must be found the same. The demonstration of the rule for finding the greatest common measure (Art. 79 to 82) is another remarkable instance of a general proof conducted by a reference to a particular example; and it would be easy to multiply them; but it is unnecessary, as the objection made [illegible] proofs

rally apply to the manner in which the rules are deduced in the body of the treatise, but only to that in which they are spoken of in the preface. In at least one instance, however, the real generality of the proof does not sufficiently appear in the demonstration. The number of decimal places in the product of two decimals is necessarily equal to the sum of the numbers of decimals in the multiplicand and multiplier, for the product is that of two fractions whose denominators are decimal numbers, and the product of two decimal numbers has as many ciphers as are contained in the two numbers themselves. This reasoning is evidently independent of any particular instance: but the manner in which the rule is deduced in Art. 121, 122, and the distinction made between the case where the figures in the product are at least as many as the decimal places in the multiplier and multiplicand, and the case where they are fewer, has some tendency to conceal the generality of the principle.

It is not, however, on a particular expression in the preface that the utility of the work itself will depend; and its general execution is exceedingly well adapted to its object. The most important part, perhaps, of the whole subject, as being that on which the whole is grounded, and on which the advantage of modern over ancient arithmetic depends, is the doctrine of numeration, or the meaning and reason of the different values which figures assume according to the places in which they are found. The difficulty of the subject is considerable; and it is the more formidable as the learner has to encounter it on the very threshold. It is here treated with singular clearness, and we should, perhaps, refer the reader to this part of the treatise, and to the section on decimal fractions, as the most interesting parts of the work. The whole, however, forms an admirable manual, though not free from some objections of detail.

A large proportion of these seem to have arisen from the wish of compressing the work within a small compass. For this purpose omissions have sometimes been made, which, though there is seldom any real difficulty in supplying them, it would have been better not to have left for the teacher or learner to discover. It should never be forgotten, that a work of this kind is intended for beginners, and that it will often happen that the persons who assist them in their attempts are themselves either imperfectly, or not at all acquainted with the principles of the science, and not very expert even in its practice.

An instance of this kind of omission is to be found in Art. 17, where the rules of numeration are given. Rules are

given for adding ciphers at the end of a number in such cases as fifty or seven hundred; but none for inserting them in the middle in the case of such a number as four thousand and six. It is true that in the earlier part of the section, where the *principles* of numeration are explained, such a number is taken as an example, and that a learner, who fully understood what he had there read, would have no difficulty in writing it down correctly. Still in the recapitulation of the rules established this ought not to have been omitted; it is required in two of the examples given, and the want of it is further exemplified at the bottom of page 19, where the omitted rule is introduced in a parenthesis, being wanted for actual application.

Again, the algebraic signs for addition, subtraction, &c. are used in this treatise; which is very desirable. But the interpretation of them is not sufficiently explained, for there is no statement of the manner in which they are to be understood when used in connexion with each other, and this is of essential importance. The evil indeed is less than it might seem, for the earliest examples in which they thus occur are connected with solutions fully detailed in words, and an intelligent reader may therefore collect from them a rule of interpretation. On the other hand, a learner may very probably omit to draw the inference, and if he does so, he will be at a loss to know whether such an example as 123 × 9 + 4 (Art. 51) means 1107 + 4, or 123 × 13.

Besides these omissions, which to a certain degree affect the completeness of what is to be found in the book, there is no notice at all of some matters, which many readers would expect to find there. We do not speak of many of the rules of mercantile arithmetic, which, generally, are merely the application of the general principles deduced in this treatise to the practice and the subjects of particular trades, for all such applications are well left to be acquired by those who want them, at the time when they do so: we refer to matters either illustrative of the principles themselves, or else furnishing rules of general practical application, dependent on other principles besides those explained in the treatise. Thus there is no notice of any method of finding the greatest common measure of three or more numbers, of finding by one operation the least common multiple of several numbers, of the rule for increasing the last figure of an approximate decimal by 1, when the figure next after it would be 5 or upwards, no rule for finding the square or cube root, no notice of circulating decimals. The last is perhaps beneficially omitted, for no practically important conclusion depends

upon it: it might however be worth while to point out the fact, that as soon as the same remainder recurs after all the figures of the dividend, except ciphers, are exhausted, the further quotient will consist of mere repetitions of the same figure or period of figures; for the knowledge that it will do so may occasionally save the reader some tediousness of operation. All the other omissions noticed might, we think, be supplied with advantage, with the single exception of the rule for the extraction ot the cube root, the labour of which very far exceeds its utility. The rest, with the exception of the extraction of the square root, would add little either to the bulk or difficulty of the volume: and the extraction of the square root is not so unfrequently required, but that the treatise seems practically imperfect without it.

Nothing, except the actual correctness of the statements contained in an elementary treatise, is of more importance than the order in which they succeed each other. With one slight exception, there is no room for complaint on this account, as far as the arrangement of the *propositions* of the treatise is concerned. That exception is in Art. 28, where the learner is directed to exercise himself in subtracting numbers less than 9 from numbers greater, as well as in adding them together; and this before any account is given of the principles of subtraction. Several of the *examples* however are prematurely introduced. The last example of Art. 70, and the two last of Art. 145, though they may easily be reduced to mere applications of the rules to which they are appended, are really questions in the Rule of Three, which is not explained till Art. 151.

Others of the examples introduce considerations foreign to the mere exemplification of the rule which they are designed to illustrate. Thus, in the last examples of Art. 38, 102, 105, 155, and 166, the first example of Art. 150, and the third of Art. 155, the real elements of the calculation have to be extracted from questions of some intricacy in the mode of statement. It is very right that such examples should be given, for the process of reducing the problem given to the question on which its solution depends, exercises the powers of the mind in a very useful manner: but it requires some notice and explanation, and this it does not receive. One or two examples of the kind worked in detail, would furnish all the assistance requisite; a general direction would be given to the efforts of the learner, while the mode of treating each particular case successfully would be beneficially left to his own ingenuity and diligence.

There is a deficiency, however, which ought not, we think,

to exist with respect to any of the examples to which it applies, and least of all to such as we have last mentioned; the want of answers. Their insertion may occasionally give a mischievous assistance to an intelligent but careless student; but the want of them deprives every learner of the best test of the correctness of his operations. There are also a few examples in the treatise, which ought not only to have answers but solutions, for they involve principles or establish rules of some importance, which are not elsewhere asserted or proved. See Art. 19, iii. iv. and Art. 38, iii.

Many of the examples given are particular instances of algebraical formulæ, as,

$$a^2 - b^2 = (a + b)(a - b),$$

$$(a + b)^3 = a^3 + 3\,a^2 b + 3\,a\,b^2 + b^3,$$

$$\frac{a^3 \pm b^3}{a \pm b} = a^2 \mp a\,b + b^2,$$

and the like. This is an easy and rapid mode of making examples, but we do not think it an eligible one. Examples thus formed are instances of a general truth, depending on a principle to which the reader is not introduced; but the evident connexion between the two sides of the equation is not likely altogether to escape his notice, and may entice him to a hasty, and probably erroneous, attempt to generalize in it. It is very desirable to keep the provinces of general and particular truth distinct; and this mode of inventing examples has some tendency to confuse them.

There is one very important drawback to the utility of the work which yet remains to be mentioned, the great inaccuracy with which it is printed. To a person beginning a new course of study, and consequently doubtful of the accuracy of his own operations or conclusions, any typographical errors, especially when they affect a result, cause the utmost inconvenience, and this book unfortunately abounds in them. There is a table of *errata* consisting of eleven articles in a work of only 130 short pages, and these are not nearly all.

After entering into so much detail of the blemishes which have occurred to us in this valuable manual, we ought not to conclude without observing that they are of little importance if the book be read under the superintendence of an intelligent teacher, and that even to an unassisted student few of them are likely to oppose any serious difficulty. It is indeed one of the greatest advantages of this mode of treating the subject, that the learner, if he understands what he reads up to a certain point, is enabled to grapple with some difficulties in the sequel. Instead of merely learning a number

of rules by rote, he learns to refer every thing to reason, and he is taught how to do so; and thus he will often be able to ascertain the meaning of an ambiguous passage, or supply the defect of an imperfect proof. It is only thus that any knowledge of the principles of arithmetic can be acquired; and although it is not necessary to resort to these considerations to attain practical facility in performing arithmetical operations, we have little doubt that this will be gained quite as rapidly under instruction, such as Professor De Morgan's treatise affords, as it is from the old course of mere rules and examples, and it will certainly be gained better.

We have entered into minute criticism of Professor De Morgan's Arithmetic, and have pointed out small defects, because, as we wish the book to be used, it is important to notice even the least error that may cause any difficulty to young learners or inexperienced teachers.

Dr. Butler's *Ancient Atlas.* 1827.

Since the time of D'Anville there has remained scarcely any room for improvement * in the map of Gallia. The physical features of the country were already determined with considerable accuracy, and the geographer's own industry and learning were seconded by the most liberal assistance from the government. It is now seventy years since the 'Notice de la Gaule' was published; yet the schoolboy received from Dr. Butler, about the year 1815, the first cheap copy of D'Anville's maps on a reduced scale; so long may accurate information exist for the scholar, and still be excluded from the school-room. This abridgement, however, is not what it might have been; the scale being reduced to less than half the linear scale of the original, it was necessary to omit a large part of the names: our complaint is, that the remainder has not been reduced with sufficient fidelity. Dr. Butler has, indeed, himself expressed a fear that, owing to the weak state of his eyes, some inaccuracies may have escaped him. It is our purpose to point out some of them.

No town in Gallia is so interesting to the historian and geographer as that of Narbo. Known even in the time of Pytheas as one of the most powerful cities in the country, it was afterwards the seat of the first Roman colony. In the time of Strabo it was, without exception, the most populous city in Gallia, and had already given name to one of the most important divisions. The ancient writers have themselves left us data sufficient to determine its precise locality; its

* We do not admit that Mannert has made improvements in the geography of Gaul.

modern name is a still more certain guide. Yet, in all the successive editions of Dr. Butler's map, we find Narbo close upon the sea on the eastern bank of the Herault, whereas it lay twelve miles up the river Atax or Aude, a river so completely distinct from the former, that a third, the Orb, runs into the sea between them. Moreover the names of these rivers being omitted, the confusion becomes greater. We are told, for instance, by Strabo, that there was in this quarter a considerable traffic between the Mediterranean and the Atlantic, the route of which was first the Atax, Narbo being the emporium, then a portage, corresponding perhaps in direction to the present canal of Languedoc, and lastly the Garumna. With the present map this would be altogether unintelligible. Again, in the immediate neighbourhood we see Bæterræ, *Béziers*, transferred from the Orb to the Aude. On the Atlantic coast we have an error still more singular; a few miles north of Lapurdum, or *Bayonne*, there may be seen on the coast the name Aquæ Augustæ, whilst thirty miles east of it, on the *right* bank of the Adour, is a second town, called Tarbellicæ. The very form of this last word should have put Dr Butler upon his guard. In D'Anville's map he will see that the name Aquæ Augustæ Tarbellicæ belongs to one single town, which was the capital of an important people, the Tarbelli, whence the Bay of Biscay is sometimes called Mare Tarbellicum; and secondly, the real site will be found to correspond with *neither* of Dr Butler's positions, but to a third, the well-known town of Aqs or Dax, on the *left* bank of the Adour. An error precisely similar has occurred with Climberris, or Augusta. Auch, the capital of the department Gers, and situated on a river of that name, bore in ancient times three different titles in succession, Climberris, the Celtic, or rather Iberic name, Augusta in honour of the emperor, and finally, Ausci, from the people whose capital it was. The river Gers Dr. Butler has omitted, but otherwise, Augusta corresponds pretty well to the situation of Auch. On the other hand Climberris is transferred a distance of fifty miles to the banks of the Adour, where it constitutes an independent town. Ascending to the sources of the Garonne, we find the word Lugaunum, and fifty miles to the east of that position is Lugdunum. These, likewise, must have arisen from a common origin, viz. Lugdunum Convenarum. The first position will thus be correct; the second site seems to belong to Consoranni, which has been altogether omitted, though it is the capital of the district now called *Le Couserans*.

The following are errors of [illegible]

with towns worthy of attention. According to this map, Aginnum, *Agen*, chief town of the department *Lot et Garonne*, lies on the left bank of the latter river; Divona, *Cahors*, capital of the Cadurci, and still the departmental town on the left bank of the Lot; Segodunum, *Rodèz*, formerly capital of the Ruteni, now chief town in the department Aveyron, on the left bank of the river so called; Argentomagus, *Argenton*, on the left bank of the Creuse; Confluentes, *Coblentz*, on the left of the Moselle. Such are the positions of these towns according to Dr. Butler. By consulting any good map the reader will find that these towns ALL lie on the right instead of the left banks of the respective rivers. In Dr. Butler's map of Germany the error, as regards Confluentes, is corrected, and that town occupies a site more consistent with its name. By comparing the course of the Rhine in these two maps other differences will appear. Thus, the situation, with regard to the river, of Mons Brisiacus (Brisacum in the map of Germany is of course an error), Fletio, Trajectum, will be found to vary in the two maps. Perhaps, however, it was intended to mark the variations that have occurred from time to time in the bed of this river. A more decided error presents itself in the site of Augusta Treverorum, *Trèves*, which is removed from the Moselle to an insignificant stream now called the *Sure*.

It may be as well to note the following errors in orthography, perhaps due to the engraver.

Viducas for Viducasses or else Viducæ, near *Caen*.
Turores for Turones, district round *Tours*.
Pictavii for Pictavi, people of *Poictou*.
Corispoti for Corisopiti, part of the Osismii.
Veneti for Veneli or Unelli, *La Manche*.
Venetiae for Veneticae insulae.
Augustonometum for Augustonemetum, *Clermont*.
Illuro for Iluro, *Oleron*.
Antissiodurum for Autissiodurum, *Auxerre*.
Vellanodunum for Vellaunodunum, *Beaune*.
Caebillonum, for Cabillonum, *Chalons sur Saone*.
Lausontius for Lacus Lausonius, *Lausanne*.
Vosgesus for Vosegus or Vogesus, *the Vôge*.
Tarusconiensis for Tarasco, *Taruscon* in the *pays de Foix*.

The last is partly due to D'Anville, who has attached to the town what, as appears from his notice, was the appellation of the people, Tarusconienses. Dr. Butler has changed the plural to a singular. D'Anville is also responsible for the ablative Revessio, which, on the authority of Ptolemy, should be changed to the nominative Revession, or -um.

In the Itineraries from which Revessio has been taken, little attention is paid to the termination of the cases.

In the way of omission the following may be noted. *Names of rivers:* Atax, *Aude;* Arauris, *Herault;* Tarnis, *Tarn;* Duranius, *Dordogne;* Carantonus, *Charente;* Olina, *Orne;* Isara or Esia, the *Oise,* whence Isarae-briva, *Pontoise;* and returning to the South: Isara, the *Isère,* and Varus, *Var,* the boundary of the country. Rivers being the best foundation for geographical knowledge, it is of some consequence to mark their names as well as their course. *Names of important tribes omitted:* Tarbelli, Vellavi, Helvii, Nitiobriges, whose capital was the above-mentioned Aginnum, Cavares, Tricastini, Tricasses, whose capital is now *Troyes,* Meldi, Silvanectes, Boii, Insubres. The two last are the more important, as they are the only traces in Gallia of the two great nations that migrated into Italy and elsewhere. *Names of mountains omitted:* Iura, Cebenna. There is no trace in the map of any mountains in the *Auvergne* or *Bretagne.*

To these lists of omissions we may add, Geneva; Decetia, *Decise;* Vapincum, *Gap;* Brigantio, *Briançon;* Darantasia, whence the *Tarentaise;* Bonna, Ara Ubiorum, Fossae Marianae, &c. It is not uncommon to find in the map a little circle denoting a town without any name affixed. There are nearly twenty such deserted symbols.

Our criticism of this map has been founded chiefly on a comparison with the work of D'Anville. From D'Anville, however, Dr. Butler has made one variation which affects the utility of the map. The names of those political divisions which are ascribed to the end of the fourth century and the reign of Diocletian, were by the French geographer judiciously banished from the map itself, appearing only in the margin. Dr Butler has restored them. It would have been much better to have given either the divisions of Augustus, or else the more simple distribution of his predecessor, founded on the different origin, and different languages of the states.

We shall add a few remarks on Dr. Butler's maps of Greece, not comparing them with D'Anville's, as in the case of Gaul, but with the state of our knowledge in the year 1827, down to which period, as we learn from the title-page, the maps are corrected. And we shall not enter into minute criticism, which is impossible in a short notice, but merely point out some errors of considerable magnitude.

D'Anville supposed *two* places called Tiryns in the province of Argolis; he placed one where nobody can find it,

and the other in that position where alone these remarkable Cyclopian walls exist. Dr. Butler has retained in his map the imaginary Tiryns, and has marked the real one by a little round circle without a name. A reference to Pausanias who wrote* in the second century, or to Sir William Gell's Argolis (1810), would have corrected this mistake. The Island Calauria, on the coast of Argolis, has obtained some notoriety by being the place where Demosthenes died. Instead of the little islet, denoted by a point, the name ought to be given to the larger island north of it, which Dr. Butler calls Sphæria or Hiera.

In Messenia, we find Messene and Ithome marked as two distinct towns, twenty stadia distant from one another, while, in fact, Ithome is a mountain at the foot of which Messene stood, and where its ruins still remain. We would gladly know the authority for placing on the river Pamisus the *town* Stenyclarus, in characters as large as Sparta and larger than Argos. Coryphasium is put on the south side of the bay of Pylos instead of the north, where Thucydides puts it. (lib. iv. ch. 3, 8.) Colonis (read Colonides), a town of Messenia, is put wrong in Dr. Butler's and most other maps. It should be where *Koron* now stands, and Corone should be placed north of *Koron* near Port Petalidi. Xenophon informs us (Anab. v. 3, 11), that Scillus, the place of his retreat during exile, was on the road from Lacedæmon to Olympia, and twenty stadia distant from the latter position. In Dr. Butler's map, Scillus is four times that distance from Olympia. The far-famed Olympia itself is on the wrong bank of the river in Dr. Butler's map, being on the south instead of the north side: its place is occupied by Pisa, which, if it be put anywhere, should probably be transferred to the south bank of the river.

These are a few of the very *obvious* errors; if any person will compare Arcadia with the best map in use in 1827, he may add to the list.

A great number of names are incorrectly written, which, in nearly every instance, we have no hesitation in attributing to the engraver; such as Anachus (*Inachus*), Luboea M. (*Eubœa* M.), Pogoni Pt. (*Pogon. Pt.*), Colonis (*Colonides*), Glympos (*Glyppia*), &c. A river Helisson, which appears in three different places, is written in three ways; Helisson, Helison, Elisson. Attica is on so small a scale, that much allowance should be made for the difficulty of clearly showing the relative positions of the most important places; but still there are errors that might have been easily avoided. Thria, which gave name to the Thriasian plain, is placed as

far north as Deceleia. Though its precise position is doubtful, we know it is not near Deceleia, nor yet near Marathon, where Pliny (iv. 7.) seems to fix it. Kruse puts it on the coast, south and east of Eleusis; its true position is probably a little to the north and east of Eleusis.

The little place Rhus (Ῥοῦς), which Dr Butler places in Attica, and as far north as Œnoe, should be carried south and set down near Megara; for it was there that Pausanias saw it. (Attica, ch. 41.) Panactum, *Gypto Kastro*, one of the frontier forts of Attica on the Bœotian side, is placed tolerably correctly in the map of southern Greece, yet without the usual mark (o); but as it often happens that two maps of contiguous districts contain a common portion, let us see where Panactum stands in that part of northern Greece which comprehends a part of Attica. In northern Greece it is carried over the mountains, and placed in the plain of the Asopus; a very considerable mistake, but we believe due in a great measure to the small scale of the map, and to the *difference* in the scale of these two maps that contain a common portion. Indeed the whole map of northern Greece is on far too small a scale to allow great accuracy. In this map of northern Greece we find Megara instead of Megaris, Œnœ for Œnoë, and no (o); Phyle, a place of *some* historical importance, is completely misplaced in both maps. In the north-eastern angle of Attica we find a *town*, Piraice, near Oropus; but Piraice is the name of a *district* of which Oropus was the chief town. (Thucyd ii 23.) We beg it not to be understood, that we are unable to detect more errors in the map of Attica, both of omission and commission; but what we have said is enough to show the necessity of some alteration in a school Atlas that is so extensively used If we were to proceed to the examination of other maps, it would be easy to show many errors of a very striking kind; such as, in Egypt, the omission of Naucratis, and the placing the pyramids south instead of north of Memphis. For it must be presumed, that an ancient map is chiefly intended to explain ancient authors, and a school map especially should be adapted to explain the books usually read in schools and colleges. When a boy then is reading Herodotus (ii. 97.), who says that during the inundation period a man may sail from Naucratis past the pyramids (he means those of Jizeh) to Memphis, how can he comprehend this passage, if he looks at the map and finds the pyramids beyond Memphis?

There is one mistake of a very singular nature. D'Anville had a theory that the Lake Mœris of Herodotus [illegible]

the kind of valley that lies between the Nile and Joseph's Canal; and in his map he represented this supposed lake by a kind of parallelogram about fifty geographical miles long. This parallelogram has disappeared in Dr. Butler's map, which we consider to be in general a copy from D'Anville, and the Canal of Joseph is transformed into the Lake Mœris.

Lessons on Objects, as given in a Pestalozzian School, at Cheam, Surrey. Seeley, 1830.

Perhaps in no department of education has so much improvement taken place within the last few years as in that which belongs to children. Yet among the many useful works which have lately made their appearance, it is matter of surprise that so few have been written with the view of leading young persons to observe and reflect on the properties of the objects which continually present themselves to the senses, and of necessity occupy very much of the attention during early life. Whilst it has been the fashion for ages to teach children to read, write, and *cipher*, and, too generally, to initiate them when very young in the incomprehensible mysteries of grammar in a dead language, they have been allowed to remain ignorant of the most common natural objects, or left to form their notions of them in that imperfect manner in which all ideas are conceived by the unassisted minds of children.

The book before us is the first elementary work in this country,* we believe, which has been devoted to the explanation of *things*. It professes, indeed, to form one of a series of volumes intended to embody in lessons the principles and method of Pestalozzi. To consider the book in reference to the system which it exhibits, is not our present object; neither is such an examination at all necessary. It possesses an individual value and importance, and it is on that account that we now notice it.

Aikin has remarked (and the sentence is appropriately used as a motto for the lessons on objects) that 'we daily call a great many things by their names, without ever inquiring into their nature and properties, so that, in reality, it is only their names, and not the things themselves, with which we are acquainted.' It is the particular purpose of this volume

* A small work was published in Germany in 1818, by Wilhelm von Türk, entitled, 'Die Erscheinungen in der Natur' (Phenomena of Nature.) Its object is to bring before the young pupil in a familiar manner the different phenomena of nature. It presents a variety of subjects for the child's consideration, the knowledge of which is useful, and besides, admirably calculated to draw out his powers of observation. A translation of this book would be an acceptable present to parents and teachers.

of lessons, to remedy the defect in education, so justly complained of by the author of 'Evenings at Home.' The subject seems to be of the highest importance, and one calculated to exercise an extensive influence upon general education. We shall endeavour to explain, briefly, some of the reasons why so great a stress is here laid on the necessity and advantage of introducing lessons on objects as an essential branch of elementary instruction.

The very consideration of the age at which the business of education commences, immediately suggests two principal reasons for commencing the work, by teaching the nature and properties of things.

First, This plan is the only efficient one by which the wavering attention of children can be interested and permanently fixed. Secondly, the plan is strictly philosophical, and is well calculated to draw forth the mental powers, and gradually to bring them in their natural succession into active operation.

The mind of a child is very much under the influence of the organs of sense, and is continually drawn away from one object to another, as each successively presents itself. To fix the attention in any way at this age, for the attainment of knowledge of any kind, is a difficult task: but to tie it down to books which are uninteresting and often unmeaning, is as impossible as it is absurd. Time is lost by the teacher in his fruitless endeavours; the mind of the learner is soured; and too frequently considerable obstacles are thereby raised to the future acquisition of knowledge. The extreme activity of the perceptive faculty suggests some visible material as the stock on which we may engraft lessons in useful knowledge. The toy with which the child plays, the table at which he sits, the room in which he lives, the objects which are most about him, and which most interest him, are the most appropriate subjects of inquiry, because he is familiar with them. He already knows their qualities, some at least, and has discovered many of their uses. Any new facts connected with such objects he learns with ease and pleasure; and what he thus learns is readily remembered, and, being often found immediately useful, furnishes a motive for fresh exertion.

The plan exhibited in these lessons is al[illegible] phical, and is formed on an accurate observation of the pro[illegible] by which the mind acquires its ideas; the organs of sense being the channels through which they are conveyed. The mind itself possesses a certain power, by means of which it compares, judges, abstracts, and reasons, but the [illegible] of its operations is derived from without. [illegible] round us, are so essentially necessary to the [illegible] of

thought, that no ideas, however apparently abstracted and intellectual, can be considered as correct or well defined, except so far as they are consistent with nature, and can be referred to the most primary notions by regular and easy gradations. This account of the origin and gradual refinement of our ideas, is so far certain and generally true, that it applies to the acquisition of knowledge at all periods of life. It is the plan which nature herself sets into operation in the dawning mind of the infant, and it is carried forward, by the voluntary efforts of the child, in the nursery and in the play-ground; and in active life it is still continued. In childhood, however, where new ideas are conceived in such rapid succession, the truth of these remarks is more particularly to be recognized. The earliest impressions are of things and the relations of things, in the most literal acceptation of the terms. The fact of the origin of our ideas, is the more apparent, from the *degree* in which they are developed, which always accords with the degree in which the objects of external nature are brought before the senses. Two young children, for instance, of the same age and abilities, will acquire very different degrees of knowledge, if they are not equally conversant with the things around them. If one of them be confined within a short space, his nursery, parent's house, and garden, and little or no pains be taken to exhibit things before him in an interesting point of view; and if the other be allowed to roam more at large, to see a greater number and variety of objects, and to have them placed before him in a very obvious manner, there can be no doubt of the result;—the latter gains much actual knowledge, while his organs of sense are sharpened, and the faculties of his mind exercised and improved; the former in his narrow sphere of observation has his knowledge confined and imperfect, and his faculties being less exercised are less developed.

The very first rudiments of knowledge are easily attainable, because the objects which first meet the attention, present certain grand and decided lines of distinction between each other, in shape, size, colour, or some other easily understood relation. But when the subjects of thought are necessarily more numerous and complex, and when they present qualities, some similar and others dissimilar, a wider observation becomes necessary to establish the truth of the judgments formed upon them, and of the reasonings formed upon those judgments. The following error of judgment is the consequence of a confined experience. A child burns his finger by touching a red-hot coal; the ideas of red and burning become strongly connected in his mind, and he dreads to

living spirit which animates the child's entire mind, and leads him on to the acquisition of solid and real attainments.

It appears then to be the business of the instructor, to lead children in the earliest stage of their education, to observe with attention the objects by which they are surrounded, and to describe with accuracy the impressions which they receive from them; and for two principal reasons: first, because the knowledge thus acquired is best adapted to their age, and most useful for the general purposes of practical life; secondly, because by these means the powers of the mind are developed in an easy and natural way. Such is the general principle (see page 1) of the plan of instruction which the book now before us is intended to explain, and present in a practical form.

This little volume is a 'corrected and recorrected' edition of lessons actually given to children, and, therefore, possesses a value to which no book made in the closet can lay claim, being the result of actual experiment. The work consists of a number of lessons, divided into five series; beginning with subjects the most easy and elementary, it gradually increases in difficulty, each successive step being adapted to the mind of the child as it acquires fresh stores of knowledge. Every part of these lessons is interesting to the child, both on account of the active operation into which his own mind is necessarily called by the *manner* in which the lessons are given; and also by the attractive nature of many of the *materials* which form the subject of the lessons. In the first and most elementary series, the pupil is *simply taught* to make a right use of his organs of sense, and to exercise his judgment so far only as relates to the objects about him; and accordingly the matter brought before him at this stage, is such that its obvious properties can be discovered and described by a child who has acquired a tolerable knowledge of his mother tongue. Throughout the whole series of lessons, but especially at the beginning, it is very desirable that the child should always *be led to observe for himself*, and not passively receive information from his teacher; for information thus communicated is soon forgotten. In order to explain the meaning of these remarks more fully, and also to give some notion of the plan on which it is proposed that the lessons should be conducted, we select at full length the first in the series.

'LESSON I.

GLASS.

Glass has been selected as the first substance to be presented to

the children, because the qualities which characterize it are quite obvious to the senses. The pupils should be arranged before a black board or slate, upon which the result of their observation should be written. The utility of having the lesson presented to the eyes of each child, with the power of thus recalling attention to what has occurred, will very soon be appreciated by the instructor.

The glass should be passed round the party to be examined by each individual *.

TEACHER. What is that which I hold in my hand?

CHILDREN. A piece of glass.

TEACHER. Can you spell the word "glass"? (The teacher then writes the word "glass" upon the slate, which is thus presented to the whole class as the subject of the lesson.) You have all examined this glass; what do you observe? What can you say that it is? †

CHILDREN. It is bright.

TEACHER. (Teacher having written the word "qualities," writes under it—It is bright.) Take it in your hand, and *feel* ‡ it.

CHILDREN. It is cold. (Written on the board under the former quality.)

TEACHER. Feel it again, and compare it with the piece of sponge that is tied to your slate, and then tell me what you perceive in the glass §.

CHILDREN. It is smooth—it is hard.

TEACHER. Is there any other glass in the room?

CHILDREN. Yes. The windows.

TEACHER. (Close the shutters.) Can you see the garden now?

CHILDREN. No.

TEACHER. Why cannot you?

CHILDREN. We cannot see through the shutters.

TEACHER. What can you say then of the glass?

CHILDREN. We can see through it.

TEACHER. Can you tell me any word that will express this quality?

CHILDREN. No.

TEACHER. I will tell you then; pay attention, that you may recollect it. It is transparent. What shall you now understand when I tell you that a substance is transparent?

CHILDREN. That you can see through it.

* 'By this means each individual in the class is called upon to exercise his own powers on the object presented; the subsequent questions of the teacher tend only to draw out the ideas of the children, and to correct them if wrong.'

† 'This question is put instead of asking, "What are its qualities?" because the children would not yet, in all probability, understand the meaning of the term, but by its frequent application to the answers to this question, they will shortly become familiarized with it.'

‡ 'The art of the teacher is to put such questions as may lead successively to the exercise of the different senses.'

§ 'The object of the teacher here is to lead the pupil to the observation of the quality *smooth*, and he does so by making him contrast it with the *opposite* quality in another substance; a mode of suggestion, of which frequent use may be made.'

TEACHER. You are right. Try and recollect something that is transparent.

CHILDREN. Water.

TEACHER. If I were to let this glass fall or you were to throw a ball at the window, what would be the consequence?

CHILDREN. The glass would be broken. It is brittle.

TEACHER. Could I in the same manner break the shutter?

CHILDREN. No.

TEACHER. Could I break it if I used great force?

CHILDREN. Yes.

TEACHER. Would you therefore call the wood brittle?

CHILDREN. No.

TEACHER. What substances then do you call brittle?

CHILDREN. Those which are *easily* broken.

These are probably as many qualities as would occur to children at their first attempt, which being arranged on the slate form an exercise in spelling. They should then be effaced, and if the pupils are able to write they may endeavour to remember the lesson, and put it down on their slates.'

It will be observed from this lesson, that the chief business of the teacher is to draw out the ideas of the children, and to direct them in a right channel. He must likewise continually bear in mind, that the knowledge of a *term* should follow the conception of the *idea* which it expresses; and he should never give a word or expression to a child, till the young learner feels the want of a term to express some quality or thing which has been fully comprehended.

The second series consists of a number of lessons, calculated to fix in the mind the knowledge already gained by the previous series, and to bring the powers of judgment and comparison into more active operation. It is here very properly recommended, that the child should be led to classify the various qualities of objects, according to the organs by aid of which they are conceived: a list of the lessons of this series is here given, and one is transcribed in full.

'LESSON I. A Pin.	LESSON VIII. An Egg.
II. A Cube of Wood.	IX. A Thimble.
III. An uncut Lead Pencil.	X. A Penknife.
IV. A Pen.	XI. A Key.
V. A Wax Candle.	XII. A Cup.
VI. A Chair.	XIII. A Grain of Coffee.
VII. A Book.	XIV. A Pair of Scissors.

LESSON VIII.

AN EGG.

Parts.	*Qualities.*
The shell.	It is oval.
skin.	white.

Parts.	*Qualities.*
The white.	It is hard.
yolk.	edible.
interior.	nutritious.
exterior.	opaque.
surface.	dull.
embryo, or future chicken.	shell is brittle.
	smooth.
	thin.
	The white is liquid when raw.
	solid when boiled.
	semi-transparent.
	adhesive.
	sticky.
	insipid.
	Yolk is yellow.
	liquid.
	soft.
	opaque.
	odorous.
	sapid.'

In the third series the teacher, who has now firmly grounded his pupils in the elements of sensible knowledge, and has in some degree habituated them to careful and constant observation, leads them to exercise their judgment in its more complex operations. He no longer confines their attention merely to the external and most obvious qualities of things, but he teaches them to penetrate deeper into them, and to consider their structure, varieties, and combinations. The objects here presented before the children are such as consist of many parts, each possessing many qualities, nicely distinguished from one another; or else they are things that exist in different states and fulfil accordingly different offices. The differences between such things as wool and woollen-cloth; between cotton, cotton-thread, and cotton-cloth, white or coloured, and between a pen and a quill, may be presented to the pupil at this stage of his progress.

After having gone through a regular course of instruction, such as the above, children generally possess a power of observation and discrimination, which may easily be applied to any object which presents itself. They view things with a different eye from what they did before; they are always actively looking about them, and they detect qualities and relations before unobserved. The children must now be exercised in arranging and classifying objects, connecting things by their points of resemblance, and at the same time individually distinguishing them by their points of dissimilarity. This work of classification becomes actually

necessary to the retaining of ideas after a certain degree of knowledge has been acquired. A large number of individual, unconnected ideas cannot be remembered, but when linked together by some true principle of association they are easily and pleasingly recalled at will. With this view, in the fourth series the spices, among other things, are chosen, as exhibiting a connected series of objects, forming a good ground for proper arrangement and classification. The senses are in this series likewise brought under more careful consideration; the lesson on cloves may be considered a fair specimen of the lessons in the fourth series. When a child has been found competent to understand pretty well the lessons of the first four series, and has acquired an ability of generalizing correctly, and of arranging and classifying objects into proper groups, he may now be considered competent to enter on the exercises of the last series. These are of a nature more complex, and requiring a greater exercise of thought. Articles of domestic manufacture, articles of domestic use, natural and artificial productions, metals, earths, any thing, in short, may be presented to the pupil in a more scientific point of view than before. The children are required to make what observations they can upon the objects before them, and the teacher adds to their stock of information any further particulars which seem best calculated to amuse or instruct them. The teacher, in conclusion, sums up all the knowledge that has been gained. An examination ensues, and at the conclusion, the children are required carefully to note down the results in writing. Throughout the whole of these lessons, it is the intention of the author that opportunities should be continually given for exercise in composition. In the earlier lessons, the pupils are required to write down the names of parts and qualities, merely for the purpose of habituating them to the right spelling of words and the understanding of their real meaning. In the more advanced lessons, however, of the fourth and last series, considerable exercise is given in *composition;* and thus these lessons have a value in them superior to that which might be acknowledged by a superficial observer. They lead not only to the correct formation, combination, and classification of ideas, but also to an accurate description of them in written language. The following is a specimen of one of the lessons of the fifth series.

'LESSON XV.

PARCHMENT.

Parchment is the skin of sheep or goats, prepared in the following manner. The wool is stripped off the skin, which is then taken to the lime-pit; after this it is stretched as tight as a drum

upon a frame, and the remaining flesh pared off with a keen-edged instrument; a kind of white stone or chalk reduced to a fine powder is then spread upon the surface; and a large pumice stone flat at bottom is rubbed over it, which scours off the remainder of the flesh. The knife is once more applied to the skin, which is moistened and rubbed again with the pumice stone, until the inner side is smooth. The outside then undergoes a similar operation. It is now left to dry, and afterwards is taken off the frame, and given to the parchment maker. He first scrapes it dry on an instrument called a summer (which is a calf's skin well stretched on a frame), with a sharp iron tool, until one half of the thickness of the skin is pared off; the pumice stone is next passed over it on both sides, till it is rendered quite smooth.

'Parchment was in use long before the invention of paper. Wills, and other documents, intended to be preserved for any length of time, are written on it. It is also used for drums.'

With respect to the general plan of the book it appears good, and the gradations from the more simple to the complex and difficult subjects are easy and obvious. It is, however, matter of regret that the principle of arrangement and classification has not been more strictly followed throughout the work. We are not aware whether the want of order of which we complain, is the effect of oversight, or purposely allowed to remain, from the fear of restricting the liberty which is necessary to the free developement of the children's thoughts. To us, indeed, the observation of order in an elementary work seems to be important not only on account of its absolute necessity for the acquisition of knowledge, but because the *habit* of arrangement is of such inestimable value, that the practice of it cannot be begun at too early an age. Occasional erroneous statements might, without difficulty, be pointed out in the book, but we believe that they are not very numerous or important, at least, not enough so to render the book an unsafe guide. Instructors of youth, however, should always bear in mind that some evil necessarily results from the formation of even a single incorrect notion. Frequently a hard and Latinized word is used when a common one would answer the purpose better; for example, *eatable*, *curdled*, *lengthways*, are better words than *edible*, *coagulated*, and *longitudinally*, in a book of this kind.

The principles on which these lessons are founded may be applied to other, and also to more advanced, stages of education. In the study of pure mathematics, the fabric of science rests on no other foundation; a child will only form correct ideas of numbers, magnitude, and figure, as he has been led by easy steps to separate them by a process of abstraction from the subject to which they invariably belong in nature. The learning of a language, particularly the

Latin, Greek, or German, which are so admirably adapted for the purposes of classification, ought to be conducted on the same principles: the words are the materials; these materials possess striking points of resemblance, by which we are helped to form them into groups possessing some common character; and then we can examine with more ease wherein the various words of each group differ, and thus we are led to more minute and exact classification. We consider these principles to be of the utmost importance in the formation of the thinking faculty; they open the mind at an early age and prepare it for the acquisition of solid and really useful information.

In most systems of instruction, particularly in this country, the elementary part of education is conducted in a manner very different from that which is here recommended; and with the exception of some popular works that fortunately both instruct and amuse, there is little in the ordinary course of teaching calculated to develope the faculties of children. There may be errors in the execution of the book which we have noticed (and it would require no small stock of varied knowledge to criticise all the details), but we believe the general principles on which these lessons are formed, to be the true basis of instruction.

HEEREN'S MANUAL OF ANCIENT HISTORY.

A Manual of Ancient History, particularly with regard to the Constitutions, the Commerce, and the Colonies of the States of Antiquity. By A. H. L. Heeren, Professor of History in the University of Goettingen, &c. &c. Translated from the German. Oxford, Talboys, 1829. pp. 476.

This is a translation of the well-known work of Professor Heeren, entitled 'Handbuch der Geschichte der Staaten des Alterthums, mit besonderer Rücksicht auf ihre Verfassungen, ihren Handel, und ihre Colonieen.' It appears to have been made from the fifth German edition, printed at Goettingen in 1828, which we have compared with the Oxford version. The translator, indeed, speaks of the work having passed through six large editions in Germany, and also says, that Professor Heeren is in constant correspondence with the publishers, and supplies them with his latest alterations and corrections; but without this notice of the fact, we should not have been able to discover it. The translator says, 'As facility of reference in a work of this kind is of primary importance, marginal notes have been added, and a †

placed before every work quoted in the original German.' He means, before every work written in German which is quoted (or rather referred to) in the original. The translation is executed with general fidelity, though, of course, some errors or inaccuracies occur in so long a work; among these we may reckon the following: 'Und auch dem unkritischen Curtius fehlt es nicht an manchen eigenen nachrichten, wenn sie nur zuverlässiger wären!' which is rendered, 'And even the superficial Curtius might furnish us with abundant information, did his accounts offer higher claims to our credit.' p. 204. It ought rather to be, 'and some pieces of information are to be found only in the uncritical Curtius, if they had but more claims to our confidence.' Heeren says, 'Nur der druck von aussen verhindert es, dass die national verbindung sich nicht völlig auflöst.' In the English it is, 'Oppression from abroad alone hindered the national ties from being dissolved.' p. 37. It might be better thus: 'The pressure from without alone hindered the national union from being dissolved.' In page 87, *theilung* is translated *secession* instead of *partition*. We will close these critical, or perhaps hypercritical, remarks by objecting to the words *albeit*, *civility*, used for civilization or social refinement, and *Ptolemey* for Ptolemy.

We are well aware that *albeit* was once a good word, that Dr. Johnson defended *civility* and resisted the inroads of *civilization*, excluding it from his Dictionary to the last, and that *Ptolemey* may be defended on etymological grounds; but custom, stronger than Johnson and etymology, has settled the matter, and will allow the Oxford translator no appeal; even Mr. Mitford has not prevailed on any one to copy his *sovran* or *Hebë*. The following abstract of Heeren's Manual will shew its general character, and the kind of historical and geographical information which a student may derive from it. To criticise in minute detail a work comprehending so many particulars, would require a very long and laboured examination. As we believe the work to be useful for a student as a book of reference and reminiscence, it will be some small service to notice it.

A short introduction is prefixed to the history, which is divided into five books, containing the following subjects:—

'First Book:—History of the ancient Asiatic and African states and kingdoms anterior to Cyrus, or to the rise of the Persian monarchy, about the year B. C. 560, comprising little more than insulated fragments.

'Second Book:—History of the Persian monarchy, from B. C. 560 to 330.

'Third Book:—History of the Grecian states, both within and without Greece Proper, until Alexander, or B. C. 336.

'Fourth Book:—History of the Macedonian monarchy, and of the kingdoms which arose out of its division, until they merged into the Roman empire.

'Fifth Book:—History of the Roman state, both as a commonwealth and as a monarchy, until its fall in the west, A. D. 476.'

The first book commences with a short but clear view of the general geography of Asia, and a few preliminary observations on the history and constitution of the great Asiatic empires. 'A nomad empire,' observes our author, 'begins merely by levying tribute and occupying some rich districts; the constitutions already established among the tributary nations being generally suffered to remain.' The next step consists in taking up a fixed abode and building cities, the customs and civilization of the conquered people being at the same time adopted; hence arises a division into provinces, and a government by satraps. The ruin of the state is then prepared by insurrections of the satraps as well as by the luxury of the rulers, and the indolence unavoidably arising from a seraglio government, and is finally accomplished by some violent blow from without. The author then gives a short sketch of the Assyrian history, remarking that 'with the Greeks Assyrian is generally a common name applied to the ruling nations about the Euphrates and Tigris previous to the time of Cyrus. With the Jews, on the contrary, it signifies a distinct nation of conquerors, and the founders of an empire.' p. 25.

After giving an outline of the history of the Medes, the Babylonian monarchy, and the states and kingdoms in Asia Minor, Professor Heeren proceeds to comment upon the fragments of Phœnician history. The account of the trade, colonies, and manufactures of Phœnicia, derived from the scanty notices found in ancient writers, is exceedingly interesting and useful, and affords a favourable specimen of the style of historical criticism which the author has adopted. A short account of the Syrians follows, and an epitome of the Jewish history, which concludes the first or Asiatic division of book i. The second division begins, according to his usual plan, with a general geographical outline of ancient Africa, and a brief sketch of the geography of Egypt. Professor Heeren divides the history of Egypt into three periods: the first of which extends from the earliest times to the Sesostridæ, that is to say, to about B. C. 1600. The second comprises the reigns of the Sesostridæ, or the brilliant period of Egypt, down to Psammetichus, 1600—650.

The third brings us from Psammetichus down to the Persian conquest, 650—525. In giving, according to his uniform plan throughout the work, the sources from which the history of the first period is derived, he observes that Herodotus having obtained his information from the Egyptian priests, 'it becomes necessary to inquire, what did the priests themselves know of their earlier national history? An answer to this question cannot be framed until we have ascertained in what manner the historical records of the earlier periods were preserved among the Egyptians.' p. 52. This leads to an account of their hieroglyphics, in which Champollion and Salt are referred to, but the name of Dr. Young is omitted, who undoubtedly first discovered the phonetic value of certain hieroglyphics. Professor Heeren cannot be ignorant of this fact. The book concludes with the history of the Carthaginians.

Persian history (book ii.) is so intimately connected with Grecian, that it is of great importance to point out its sources and to appreciate them accurately. They are, 1. *Greeks.* Ctesias, of whose work, compiled from Persian annals, only a scanty extract has been preserved by Photius, Herodotus, Xenophon, Diodorus, &c. 2. *Jewish writers.* The books of Esdras, Nehemiah, and Esther. 3. 'The accounts of the later Persian chroniclers, Mirkhond in particular, who flourished in the thirteenth century of the Christian æra, can have no weight in the scale of criticism; they are, nevertheless, interesting, inasmuch as they bring us acquainted with the ideas that the inhabitants of the East form of their early history.' p. 90.

Professor Heeren tells us in his preface that this book was first designed to be used in his lectures, and indeed, we still perceive in some places the brevity and generalities of a syllabus. Thus, at page 101, he says, in his account of the Persian government, 'Babylon, Susa, and Ecbatana, the usual residences; Persepolis now used as a royal cemetery; the court supported by the most costly productions of each province; hence arises the rigid ceremonial observed at the royal table; internal organization of the seraglio; influence of the eunuchs and queen-mothers in the government.'

The ordinary reader, who expects a book to be complete in itself, will be much disappointed by sentences like these, which seem to make researches necessary, for which he may have neither capacity nor inclination; while, perhaps, on the other hand, the diligent student will be gratified by these hints, and will often be led by them to inquiries and reflections entirely new.

The outline of Grecian geography prefixed to the third book must be judged according to the author's views in his preface. It was not his object to give any thing like a complete description, but it will still be found very useful; the reader who wishes for minute information is referred to Kruse's 'Hellas,' as far as it goes.

Heeren observes, that

'Among the moderns, the English have treated most successfully the subject of Grecian history. The principal works are:—John Gillies, the History of Ancient Greece, its colonies and conquests, from the earliest accounts till the division of the Macedonian empire in the east, including the history of literature, philosophy, and the fine arts, London, 1784, 2 vols. 4to.; and William Mitford, the History of Greece, London, 1784, 4 vols. 4to. Has been translated into German, Jena, 1800, by H. L. Eichstädt. Mitford is, perhaps, superior in the abundance and authenticity of materials *; but he certainly is greatly surpassed by Gillies in genius and taste, and more especially in the proper conception of the spirit of antiquity.' pp. 118, 119.

To criticise the judgment here passed would require a long examination. It is enough at present to make known the opinions of the author.

The first period of Grecian history embraces the six centuries from B. C. 1800 to 1200, concluding with the Trojan war; the most important result of which was, 'the kindling of one common national spirit, a spirit which, in spite of all dissensions and feuds, was never wholly extinguished, and which necessarily ensued from an expedition made in common on so distant a field, that lasted ten years, and was crowned with such success. From the time of the Trojan war onwards, the Hellenes looked upon themselves always as constituting one people.' p. 126. The second period lasts from the Trojan war to the breaking out of the Persian war, B. C. 1200—500.

In quoting the chief laws enacted by Solon, 'a man to whom not only Athens, but the whole human race, owes a deep debt of gratitude,' p. 138, Professor Heeren speaks of 'a law enacted for the relief of debtors (σεισαχθεία, *novæ tabulæ*), not so much by cancelling the debts as by diminishing the amount by a rise in the value of money;' he must of course mean a rise in the nominal value; a rise in the real value would have just the contrary effect. If Solon really

* Heeren says, 'Wenn gleich Mitford an gelehrsamkeit, reichthum und gründlichkeit voransteht,' *i. e.* 'Although Mitford is superior in learning, copiousness, and solidity.' Perhaps, however, it is hazardous to correct the translation of a gentleman, whose publishers are in constant correspondence with Professor Heeren.

passed such a law, we think he was guilty of a very dishonest act, and that creditors in Athens would 'owe' him very little 'gratitude.'

The sketch of the Greek colonies is one of the most useful parts of the Manual. The history of the foreign settlements of the Greeks is generally neglected in ordinary instruction, and all attention is directed to Athens and Sparta. Amongst the numerous colonies many, such as Syracuse and Cyrene, rivalled or surpassed the parent states, and exercised a material influence on the political and literary character of the nation.

'Of these colonies, the most ancient, and in many respects the most important, were those along the western coast of Asia Minor, stretching from the Hellespont to the boundary of Cilicia. There, in lands with which since the Trojan war they had been brought acquainted, settled Hellenes of the three main stocks, Æolians, Ionians, and Dorians. These were the most important for trade; and here, likewise, in the native country of Homer (father of the Grecian *civility*), of Alcæus, of Sappho, poesy, both epic and lyric, expanded her first and fairest blossoms; and hence, likewise, flowed into the mother country the elements of a moral and national character.' pp. 156, 157.

The sketch of Syracusan history (p. 168) will be very useful to a student. In referring to Mitford, Professor Heeren observes, 'The fourth volume contains the history of Syracuse, and the defence of the elder Dionysius. It would seem that even now it is difficult to write this history in a spirit of impartiality.' p. 173. The remark is perfectly correct, but will apply equally well to all parts of Mitford's history.

The following extract from the third period, extending from B. C. 500—336, will serve to show still better the objects to which the attention of classical students should be directed.

'Financial system of the Athenians.—Revenue: 1. The tribute paid by the confederates (φόροι), increased by Pericles from 460 to 600 talents. 2. Income from the customs (which were farmed) and from the mines at Laurium. 3. The caution money of the noncitizens * (μέτοικοι). 4. The taxes on the citizens, (εἰσφοραὶ), which fell almost entirely on the rich, more particularly on the first class, the members of which were not only to bear the burden of fitting out the fleet (τριηραρχίαι), but were likewise to furnish the means for the public festivals and spectacles (χορηγίαι). The whole income of the republic at this time was estimated at 2000 talents.

* Resident aliens are meant. The richest citizens, being always subject to the τριηραρχίαι, were exempt from the χορηγίαι. Demosth. against Leptin. chap. vii. If minute criticism of Heeren's work were our present object, we should have other remarks to make on this extract.

'But the disbursements made to the numerous assistants at the courts of justice—the principal means of existence with the poorer citizens, by whom the licentiousness of the democracy and the oppression of the confederates, whose causes were brought to Athens, were mainly supported—these disbursements, I say, and the expenditure for festivals and spectacles, even at this time, absorbed the greatest part of the revenue.' p. 190.

The latter part of this extract is very ill translated, to say nothing of its want of perspicuity and its inelegance. Though the present translation is useful, because it gives the general meaning of the author, it is quite impossible to say that it deserves any higher praise.

The fifth book, from p. 310—470, contains the history of Rome. It begins with an outline of the ancient geography of Italy, and a list of works on early Roman history. The following notice of Niebuhr's labours is much more likely to be unfavourable to Heeren's reputation, than to the profound inquirer who has given to Roman history a new life and a fresh interest.

'B. G. Niebuhr, *Roman History*.

'Rather criticism than history; with constant endeavours to overthrow all that heretofore has been admitted. The spirit of acuteness is not always that of truth; and men do not so lightly assent to the existence of a constitution which not only is contrary to the broad view of antiquity—inferences drawn from some insulated passages not being sufficient to overturn what is corroborated by all the others—but likewise according to the author's own avowal, stands opposed to all analogy in history. But truth gains even where the criticism is wrong; and the value of some deep researches will not for that reason be overlooked.' p. 318.

Our translator has, we know not why, passed over the following clause:—'Und die zweite, "völlig umgearbeitete" Ausgabe (von der jedoch erst der erste Theil 1827 erschienen ist); hat den obigen Tadel zugleich bestätigt und gehoben;' *i. e.* 'And the second edition, which has been entirely rewritten (of which, however, the first part only has been published in 1827), while it confirms my censure, has made it no longer applicable.' Part of Niebuhr's history is become well known to all students by the new translation of Hare and Thirlwall, and the value of the work may now be appreciated by those who cannot read the original. We select the following short account of the Roman revenues, B. C. 130, because it is one of the merits of this Manual to direct the attention to the more useful departments of history.

'1. Tribute (*a*) from the Roman citizens, that is to say, a property-tax imposed by the senate according to the urgency of the case,

(which, however, was remitted for a long time after the war with Perseus, 168, being no longer necessary). (*b*) Tribute of the allies (*socii*) in Italy, which seems also to have been property-taxes, differing in different places. (*c*) Tribute of the provinces; in some a heavy poll-tax, in others taxes on property; in all, however, they were paid in natural productions, mostly in the ordinary, though sometimes in the more uncommon, as well for the salary of the governor as for the supply of the capital. 2. The revenue from the national domains (*ager publicus*) as well in Italy (especially in Campania) as in the provinces; the tythes (*decumæ*) of which were paid by means of leases of four years, granted by the censors. 3. The revenue from the customs (*portoria*), collected in the seaports and frontier towns. 4. The revenue arising from the mines (*metalla*), particularly the Spanish silver mines, the proprietors of which were obliged to pay a duty to the state. 5. The duty upon enfranchised slaves, (*aurum vicesimarium*); all receipts flowed into the national treasury, the *ærarium;* all outgoings were exclusively ordered by the senate, and the people were consulted as little with regard to them as they were respecting the imposts. The officers employed were the *quæstores*, under whom were the *scribæ*, divided into *decuriæ*, who, though certainly subordinate, had nevertheless a great influence. Their services, as they were not yearly changed, must have been indispensable to the *quæstores* for the time being; and the whole management of affairs, at least in detail, must have fallen into their hands.' pp. 356, 357.

At p. 407, Heeren says of Goldsmith's 'Roman History,' that it is rather a sketch than a history; and refers to p. 318, where he says that it has been superseded by Ferguson's. The fact is that Goldsmith's histories have still a great reputation among the mass of readers from the ease and beauty of his style; but he has no pretensions to be considered as an historian; indeed, there seems to be no reason for supposing that he ever consulted the original writers.

On commencing the history of the Roman state under the emperors (a period comprehending from B. C. 30 to A. D. 476), Professor Heeren gives a geographical outline of the provincial divisions of the Roman empire, and of other countries connected with it by war or commerce. Like the other geographical abstracts in this Manual, it is useful for reference; and till we get a good treatise on ancient geography in our own language, it may serve as a substitute. The work concludes with an appendix, containing the chronology of Herodotus from the time of Cyrus, drawn from the researches of M. Volney, and some genealogical tables of the Ptolemies, the Seleucidæ, the Julian family, and others.

We have already stated that our object in this notice was not so much to criticise the Manual, as to show what it contains. A careful examination of it convinces us that such a book

will be useful for our English higher schools or colleges, and will contribute to direct attention to the better and more instructive parts of history. But a much more suitable manual for young students might be made, one which would contain more historical detail and fewer general remarks.

The list of books which Heeren gives at the head of each important division loses much of its value from the want of a more exact estimate of them. Some useless books stand without any remark, and the estimate of others is apparently sometimes hastily made; useful books too are not unfrequently omitted. It is very difficult to avoid the errors which are here pointed out; but to show that we do not blame without some reason, it will be necessary to mention a few instances.

We are informed, p. 12, that 'we are indebted to D'Anville for the best charts of ancient geography.' This was true once, but it is not true now; and this may be said without any disparagement to the illustrious French geographer, who was often deficient in materials that subsequent geographers have enjoyed. In referring to Mannert, there are no strictures on his geography, which, though a valuable work, contains a great many errors.

Mr. Young's History of Athens is characterized as 'rather argumentation than history.' It does not deserve mention even for its argumentation. The judgment on Niebuhr has been already noticed.

It is surprising that Heeren, who appears to be well acquainted with what is going on in England, has not mentioned so valuable a book as Clinton's Fasti Hellenici. We are indebted to the translator for supplying this omission, and for occasionally adding a short notice of other books which he considers to be useful for students.

Professor Heeren informs us in a note, p. 9, that he uses D'Anville's maps, and the translator takes the opportunity of recommending the Eton Comparative Atlas as 'beautiful, convenient, and correct.' Much of this praise is justly due to the Eton Atlas; but then he adds, 'the same may be said of Dr. Butler's Ancient Atlas.' It is not within our plan to blame anything without a distinct examination; therefore we cannot at present do more than recommend a comparison between Butler's maps and the Eton, or between Butler's and any other maps of undoubted character. The map of Gaul or Greece might be selected as the test. If many differences be found, it cannot be said that both Butler's maps and others also are 'correct.'

GREEK GRAMMAR.

Greek Grammar; translated from the German of Philip Buttmann, *by Edward Everett, Eliot Professor of Greek Literature in Harvard University.* Boston, Oliver Everett, 13, Cornhill, 1822.

Greek Grammar; translated from the German of Philip Buttmann, *Professor in the University of Berlin.* London: Richard Priestley, High Holborn, 1824.

It is not our intention to examine Buttmann's Grammar, but only to make a few remarks on the translations; and to point out some errors in them which might probably embarrass beginners.

These two translations are the same, though the titles are somewhat different. The American translation is the original, of which the English edition is unfortunately too exact a copy. It is rather singular that in the English reprint we find no notice taken of the American book; but instead of this, a studious attempt to conceal all knowledge of its existence. As a proof of this assertion, it is enough to say that various remarks in the translator's preface, and one at least* in the body of the work, which show its transatlantic origin, are carefully omitted in the English edition; while the name Cambridge (a town in the state of Massachusetts), which stands at the end of the translator's preface, is still suffered to stay there in the reprint without any explanation.

The American translation is in many parts exceedingly inaccurate, and besides some very great errors, which will be pointed out, it is full of typographical blunders. Many of these, it is true, would cause no embarrassment to a scholar, but they will probably perplex a beginner, whose difficulties are great enough, without the additional disadvantage of a badly-printed book.

These smaller errors, which an ordinary corrector of the press would discover, are generally, but not in every instance, avoided in the English reprint: the mistakes, however, which would require a little more knowledge, and very little more, to amend, are retained in Mr. Priestley's edition.

For example, in pp. 212, 213 (both of the American and English edition) we find the following explanation of words ending in θεν, σε, and θι: 'Some relations of place are indicated by particles appended, and that as follows; when the question is

* 'and partly in America,' omitted in p. 6.

whither	by θεν	as	ἄλλοθεν	some whither else.
whence	— σε	—	ἄλλοσε	from some other place.
where	— θι	—	ἄλλοθι	somewhere else.'

It might have been supposed that, by some carelessness, ἄλλοθεν and ἄλλοσε had got transposed; but the error is repeated in the next page, 'To the three relations of the place quoted, refer the three following interrogations, πόθεν, whither; ποῖ, whence; ποῦ, where.' And again, p. 222, the confusion is completed by πόθεν ἔσται being translated, 'where it is.'

The American translation is frequently defective in accuracy and clearness, owing apparently to the translator's imperfect knowledge of the German; but it is in the syntactical part, the most important of all for a learner, that its defects are most striking. The few examples that will be here given, out of a large number, are common both to the American translation and the English copy.

Page 223—Buttmann remarks that the *subject*, as in Latin, is commonly omitted, where it is known, of course, from the verb, or the connexion; and he adds, that it may also be in apposition with something else expressed. He is alluding to such examples as σαλπίζει, or σημαίνει, *the trumpeter gives a signal;* and as an instance of what he means 'by being in apposition with something else expressed,' he gives, ὁ δὲ Μαίας τῆς Ἄτλαντος διακονοῦμαι αὐτοῖς, of which we have the following translation: 'and I, the *son* of Maia, and *daughter* of Atlas, wait on them,' instead of 'I, the son of Maia, who is the daughter of Atlas, &c.' So ridiculous a mistake might have been spared in a book reprinted in England. At p. 247, Buttmann is illustrating the usages of the infinitive with the article τὸ, and he gives the following example from Thucydides: Οὐ γὰρ ἐκπέμπονται ἐπὶ τῷ δοῦλοι, ἀλλ' ἐπὶ τῷ ὅμοιοι τοῖς λειπομένοις εἶναι: the translation is, 'they (colonists) are not sent out as being like slaves, but as being like those which remain behind.' The meaning is 'they are not sent out to be slaves, but on the condition of retaining equal privileges with those who stay at home.'

Page 253—λανθάνειν with a participle is explained, 1st. as denoting something that is done without being perceived by others; ταῦτα ποιήσας ἔλαθεν ὑπεκφυγών, *having done this he escaped unperceived*, which is correctly translated; 2nd., unperceived '*in respect to the subject itself;*' or rather it denotes something which the subject does not perceive till it has happened. Then follow two examples of the second usage, the first translated correctly, and the second incorrectly: ἔλαθε πεσών, an example of the second usage, is translated,

he fell unobserved, contrary to the precept which had just been given.

There would be no trouble in adding to the list by examples such as, (p. 220) αὐτὸν γὰρ εἶδον, translated, *for I saw him myself*, contrary to the precept immediately preceding; ὁ εἰσκομίζων (p. 217), *he who is to bring*; and other similar errors, which are calculated to give a student confused and inexact notions of some of the most important and continually recurring idioms of the Greek language.

There is one ludicrous mistake of the American translation which is corrected in the English edition, but we mention it here for the sake of the American student. In p. 229, ἄπαις ἀῤῥένων παίδων is translated, *childish in respect to male offspring*. It is almost needless to say, that 'childless' is the word that ought to be used. The kind of errors that prevail in the American translation, convinces us that 'childish' is not a mistake caused by haste and inattention.

The Greek Grammars of Buttmann possess considerable merit; and the smaller one, which we have just noticed, is probably superior to all our elementary Grammars in some respects. But the translation, in its present state, cannot be recommended, nor can it be safely used by young students. The enterprising publisher who has already done so much by his reprints of useful foreign books will, we hope, not allow a second edition of this Grammar to appear without the necessary corrections.

THE ANABASIS OF XENOPHON.

The Anabasis of Xenophon: chiefly according to the text of Hutchinson. With explanatory Notes, &c., examination questions, and copious Indexes. By F. C. Belfour, M.A. Oxon., F.R.A.S., LL.D., and late Professor of Arabic in the Greek University of Corfu. *London*, 1830. 1 vol. 8vo.

Xenophon's Anabasis with explanatory Notes. By K. W. Krüger. *Berlin*, 1830. 1 vol. 8vo.

There are few Greek books on which critics and commentators have bestowed more labour than on the Anabasis of Xenophon; and no one perhaps is so well deserving of their attention, if we consider the very extensive use that is made of this book in teaching the Greek language.

Dr. Belfour's edition forms one of Valpy's School and College classics, and is part of a system, of which the charac-

teristics are, to offer to the student cheap editions of classical authors, accompanied by English notes. The general principles of this system are now almost universally admitted to be calculated to facilitate the acquisition of the Greek and Latin languages. Krüger's present edition is intended for young learners; his former edition, though principally adapted for school use, being unnecessarily large, and also too expensive for many German school-boys. The short notes at the foot of the page are in German, and entirely devoted to the grammatical explanation of the Greek text. Occasionally a short passage that presents some difficulty is translated, or some general remark on the Greek syntax is made; or, what is perhaps the most useful of all, the student is referred to other passages of the Anabasis that serve to illustrate the syntactical usages which he meets with in his reading. This edition of the Anabasis is well adapted for a school book.

It requires a few more words to explain Dr. Belfour's plan, as it is less simple than Krüger's. In Dr. Belfour's preface we are informed that J. G. Schneider is the *latest* German Editor of the Anabasis, an assertion not quite correct, as it is very easy to name at least half a dozen German editions since that of Schneider. Those of Dindorf, Krüger, Bornemann, and Poppo are well known, and much used. Schneider 'was enabled (Dr. B. goes on to observe) chiefly by the attentive use of the Paris MS., to amend various readings;' which is certainly true: but this is a very vague way of speaking about the Paris MS.; and on referring to a note (page 27), it appears that the Editor thinks there is only *one*. He is also of opinion that Schneider rather *altered* the text than *improved* it, (which is perhaps nearly, not quite, exact,) and therefore he (the Editor) has only retained, in the present edition, those variations of Schneider from the usual text, which the principles of the Greek language and the concurrent authority of manuscripts and editions recommend. But, in general, we find no manuscript quoted either to defend an old reading, or to recommend a new one, except the Eton or *the* Paris MS.; and we shall give some instances where Dr. Belfour goes against all the good manuscripts, as he *very* frequently does, from not knowing what the manuscript variations are, of which he might have found a very fair collation in Dindorf's larger edition. A table of contents, a very useful thing for beginners, is prefixed to the Greek text: it is translated from the Latin Summary in Schneider's edition. At the end of the book there is a Greek Index, consisting of a selection from the words of Zeune's Index, which is printed in Schneider's edition, with some improvements. We are

surprised, after what the Editor has said in his preface on the advantage of using English, instead of 'spurious Latin,' that he should be contented with re-printing the Latin of Zeune's Index, instead of taking the trouble of turning it into English, as he has done with the table of contents. Some questions, 'on the Cambridge Plan,' accompanied by an Index to them, complete the description of the book, with the exception of the notes, of which we shall speak more particularly. These questions, which are at the end of the book, are but few, and we think not good as a specimen of question-making; it must be admitted however that it would not be easy to make a sample of questions that would be generally approved.

We shall first speak of Dr. Belfour's notes, as to the general plan on which they are made. To illustrate the Anabasis completely would require a very large volume of commentary. Major Rennel wrote a quarto book on the geography, and did not exhaust the subject. The critical notes of Krüger, Bornemann, Schneider, &c., that are worth collecting and reading, are by themselves enough to form a volume. Unless, then, an Editor, whose observations are limited by the plan of his work, choose some one department for his more particular illustration, there is danger of the whole body of commentary being nearly useless, because no one part will approach to completeness. Krüger, in his small edition, by choosing the grammatical explanation, has made a useful commentary for a young learner. Dr. Belfour has explained nothing completely, and he spends a great many words on things of no importance. His language, too, is half Latin, and as unpleasant to read as that 'spurious Latin' which he speaks of in his Preface.

In p. 181, we find that 'Porson commands;' p. 24, 'Larcher advises from Herodotus,' which is a very fair translation of Schneider's 'Larcherus admonet ex Herodoto.' Page 27, 'imprudently Schneider ὕστερος.' Page 176, 'Porson lauds the remark of Hemsterhusius.' These however are small matters, and we mention them not as impairing the value of the information that may be thus communicated; but we most strongly protest against some symptoms that the Editor shows, of a wish to revive that practice of calling one another hard names, which has been the disgrace of scholars, and still is in some degree the fashion, particularly in Germany. Thus (book iv. 3, 30.) he is explaining that [illegible], the word in *his* text is not from [illegible], 'as Hutchinson, in his ignorance of accentuation, supposes;' and then comes a little side blow against the Germans for reading [illegible], which we shall continue to read with the Germans, as long as we read Xenophon.

Again, (i. 10, 16) he remarks, that 'Schneider, in his *ignorance* of the language,' has παρεῖν, where Dr. B. chooses to have παρῆει; the latter is, perhaps, a better reading, though the Vatican MS. has παρεῖη, and also Krüger. But though Schneider was not a very great verbal critic, he was still not a bad one; and when we consider all that he did for the Greek language, the word *ignorance* should never be coupled with his name. When the Editor, in a note (p. 27,) gives μὴ τόλμησον as a specimen of Greek, we would merely remark, that he has, probably through haste, committed an error: we would not say that he did it 'in ignorance.' It is, however, a matter of serious complaint against these notes, that they do not contain good general principles for the guidance of students; and that frequently a Greek lexicographer, or critic, often not easy to be understood by a young student, is quoted, where a familiar explanation should be given. Some points of the least important kind that can be imagined, where the Editor differs from Schneider, are decided in the following manner:—In book i. 5, 11, Schneider reads καὶ τῶν τοῦ Κλεάρχου, where the Editor omits τῶν, and gives the following reason: 'Schneider has unnecessarily added a fourth τῶν, atque ita νὴ Δία depravavit tonum.' This seems to be intended for a joke.

To exhibit the text of a Greek writer as near as possible in its original form is the duty of an editor. We believe that the only mode of accomplishing this is, to procure exact collations of the MSS., to endeavour, from a careful examination, to arrange them in the order of merit, and then to follow chiefly one or two of the best, consulting the others whenever the better MSS. (which is often the case) are imperfect or inaccurate. As to corrections, we would *never* make them where the received text is supported by the better MSS., and is intelligible, and is not at variance with any established usage: where the text is unintelligible, we think there is no great advantage in foisting in an expression borrowed from the same or some other writer. But it is a different thing to make a correction, when *some* traces of this new reading are discoverable in the corrupted words, or when the general tenor of the sentence and the context clearly point out what is intended: this is real and sound criticism. The Greek lexicographers and critics of course claim some attention, whenever they have quoted a passage; but we would not rely much on their assistance, which so often has been found fallacious. Dr. B.'s way of judging of the correctness of a reading is altogether different from the doctrines here laid down: he does

not inquire what the MS. readings are; and consequently he often makes incorrect assertions about them, or neglects them altogether. He seems to judge of them chiefly by the ear, and as his ear and Schneider's German ear evidently belong to two different classes, we cannot be surprised at finding so many notes on the subject of Schneider's 'cacophonies.'

Those who are well acquainted with the various readings of the Anabasis know, that in almost every sentence there are variations, many of which are quite unimportant; but yet the Vatican MS. (called A in Dindorf's edition) and the Paris MS. (marked B) generally agree even in these unimportant variations; and these two MSS. we should generally follow. Among this class of readings, however, Editors may pick out what they like best, without being blamed by their brethren of the trade; but not so with that class of readings, in making a selection from which some *principle* is involved.

We shall notice a *few* of those very numerous cases in which we differ from Dr. Belfour. In a note on p. 4, he says, the Daric is worth 13*s.*; those who have weighed a Daric, know that it is heavier than a sovereign, and purer gold*. It 'took its name from having on one side the head of Darius;' there is no head of Darius on a Daric†.

Schneider (note 1. 2, 9,) made the number of Cyrus's Greek army to be 12,300, though Xenophon himself says it amounted to about 13,000. It might have been remarked that as Schneider left Menon's forces *out of the calculation*, and took the wrong MS. readings too, the only wonder is that he contrived to come so near the truth. The whole is explained very well in Bornemann's note. On i. 3, 11, it is remarked, that Schneider substituted ἄπιμεν for ἀπίωμεν (the Editor correctly retains ἄπιμεν) on the authority of the Eton MS.; but *three* better MSS. than the Eton have ἄπιμεν also. The word μενοῦμεν, in the same sentence (on which there is no remark), is a correction of Buttmann's, and a good one; the MSS. have μένωμεν. But the Editor does not keep true to his principle; for in i. 4, 16, he has ὅπως ἐπαινέσητε where Krüger and others have ἐπαινέσετε, with the best MSS., not including the Eton.

It would be unfair not to state *generally* that the Editor has in a considerable number of instances done right in rejecting Schneider's readings; and, as a particular example, we may mention, i. 4, 12, where he takes ἰόντων, instead of Schneider's ἰοῦσιν. The reasons which he gives in his note for this preference would have been much strengthened, had

* The Daric in P. Knight's collection weighs 129 gr.; the sovereign, 123 gr.

† See Herod. iv. 166, on the gold coinage of Darius.

he adopted Krüger's excellent plan of explaining one passage by means of another. For similar instances Krüger refers to ii. 4, 24, v. 2, 24.

In a note on θηρία δὲ παντοῖα (i. 5. 2,) the Editor, omitting παντοῖα in his text, says, that 'it appears to be simply a marginal annotation' Either παντοῖα, or παντοῖοι, a corrupted word, is found in six MSS. Though it is not the Editor's plan to notice MS. readings, we think it ought always to be done, at least, in those cases where a conjectural emendation stands in the text. In i. 5, 3, all the Editors now prefer either ἀπεσπᾶτο φεύγουσα, which is Dr. B.'s reading, or ἀπέσπα φεύγουσα, which Krüger prefers. But the best MS. reading is, ἀπέπτα φεύγουσα, which we see no objections to receiving, notwithstanding Poppo's remarks (see his note). In i. 5, 4, Dr. B. will read ἀνίστη with the MS., contrary to his usual practice, though every Editor but himself clearly sees that ἀνιστῇ is intended. Krüger wishes to read ἀναστῇ, which proposition will not be generally received.

In i. 6, 1, a great improvement has been made in most editions by removing the full stop after πολεμήσας, and placing it after καταλλαγεὶς δέ, as the sense evidently requires. It is rather surprising, that Bornemann keeps the old punctuation ; Dr. B. also retains it. We shall now notice a couple of examples where the editor has erred, as we believe; though, in both instances, he is in very good company. In i. 6, 10, where Orontes is seized by the belt, the best MSS. have ἔλαβον, or ἔλεγον, which we believe to be intended for the same. The editors, however, read ἐλάβοντο, which, coupled with ζώνης and 'Ορόντην, is a solecism. Dindorf, in his larger edition, reads ἐλάβον, but in his smaller edition, ἐλάβοντο. About the second example, however, there is no doubt. Orontes is seized by the belt ἐπὶ θανάτῳ; the *intention* to put him to death being clearly denoted by the act of seizure, and the kind of persons who laid hold of him. Then he is led ἐπὶ θάνατον, *to die, to death;* θάνατον being the MS. reading, at least the reading of all the best MSS., including the Eton: and yet no Editor whom we have consulted, except Krüger, has retained the right reading. Krüger refers to Herod. iii., 14: we may also refer to the general usage of this preposition in these two senses.

Dr. B. sometimes agrees with Krüger where we should differ from both ; and as, in general, it is with some distrust that we question Krüger's authority, we may be wrong in our judgment on the following point.

In i. 7, 19, the Editor prefers ἀπεγνωκέναι τοῦ μαχεῖσθαι, to ἀπεγ. τοῦ μάχεσθαι, recommended by the best MSS. Krüger

also has the future. The Editor says, that the present is used for an 'act in execution, not in contemplation.' We prefer the present, notwithstanding, as in this passage of Demosthen. (περὶ Ῥοδ. ἐλευθ.) τῷ μὲν ἀπέγνω μὴ βοηθεῖν.

An example occurs again in i. 10, 6, where the Editor has correctly preferred προσιόντος to προσιόντες, the reading of Schneider. But, in another instance, ii. 1, 1, we cannot commend his omission of τὰ before πάντα, (τὰ is found in three MSS., and among them the Vatican, which Dr. B. does not notice) nor his note: 'Schneider has corrupted the phraseology, and destroyed the rhythm by the insertion of τὰ from the Paris MS.' Krüger and others have τὰ, which we consider necessary; so much do the judgments and the ears of critics differ. Nor can we approve of the following punctuation (ii. 1, 3.): Προκλῆς, ὁ Τευθρανίας ἄρχων γεγονὼς, ἀπὸ Δημαράτου τοῦ Λάκωνος. The comma should be after ἄρχων, for which it is quite unnecessary to give a reason, though the Editor has given one for his own punctuation. We will notice another instance of bad punctuation, involving a general principle, in which the Editor follows Schneider. In iii. 1, 24, he puts a full stop after ἐνθυμοῦνται, where Krüger and others have a comma. It is almost incredible how many passages are rendered nearly unintelligible by the same kind of mistake, particularly in Herodotus.

In iv. 2, 3, Dr. B. has retained the MS. reading πρὸς τὰς πέτρας παίοντες, which we believe to be the right reading; Schneider's correction of πταίοντες, followed by the Editors, is quite unnecessary. But on this variation there is no note, and it is left for us to conjecture whether the Editor did not observe it, or intentionally omitted all notice of it. In looking through Dr. B.'s edition, we find many examples in which he appears to us to have restored the better reading; but we find also so many more examples of hasty and careless change and criticism, that we are quite unable to discover the general principles by which he is guided.

In the long speech of Xenophon (vii. 7, 30), Schneider has ἐκ τῶν νῦν γεγεννημένων, where the Editor has ἐκ τῶν νῦν γενομένων, and the following note upon it in 'spurious Latin,' condemned in his preface: 'Schneider, qui quantum sartor de usu verbi Græci scire videtur, has substituted νῦν γεγεννημένων from the Eton MS.'

Among these cobblers or botchers, we find the five best MSS. (including the Eton), with Krüger, Dindorf, Poppo, and Bornemann; and we have no objection to the Editor adding ourselves to the number.

PINNOCK'S CATECHISMS.

Pinnock's Catechism of Geometry and the First Principles of Trigonometry. London, Whittaker, 1829.

Ditto, Catechism of Greek Grammar.

There are two classes of persons upon whom education produces very different effects. The first, containing the smaller number, consists of those who, in learning words and facts, have reasoned upon them, and have learned to make that which they do know the means of discovering that which they do not. To these persons, words are not knowledge, but a method of receiving and communicating it. The second, and much the larger class of the two, have not penetrated beyond the surface, and have considered words only, without seizing principles, and they do not discover the inferior quality of their attainments, until put upon inquiries which demand original thought, or, which is perhaps a better test, until they are called to communicate instruction to others, and especially to the young. The individuals of this class, who understand better the meaning of one word than of two put together, place a high value on words, as all will do on their most precious possessions, be their intrinsic merit what they may.

Now it so happens, that the writing of elementary works for very young children has for the most part fallen into the hands of the latter description of persons. The reason is, that those more highly qualified too often feel a sort of disdain for so lowly an occupation, as they think it; not being aware of the difficulty of the task, and of the high order both of talent and of knowledge which it demands. They do not reflect on the clearness of perception which it is necessary to have, in order to put facts in such a shape as to make those reason to whom the employment is new. This clearness of perception is the consequence of a certain habit of considering the elements, in which deeply learned men are sometimes as deficient as the most ignorant. It is not what has been gained, but how has it been gained, what habits of mind have been formed in the acquisition, which distinguishes the man who is fit to teach, from him who is not.

This being the case, a great proportion of elementary works for young children have been put into that form in which words may be gained without the trouble of thinking about their meaning. Learning by heart that which is put before them is the principal occupation of young people, and as the making one set of phrases suggest another to the memory, is easier

than forming one idea out of others in the mind, the catechetical form has often been preferred to all others. This is the case in the little work before us, which purports to be a Catechism of Geometry, but which ought to be called 'an ill-arranged summary of geometrical terms, without reasonings or principles, or food for thought of any description worth having; containing a copious collection of terms out of use or misapplied, and the manner of working some problems, particularly how to draw a straight line with a pencil and ruler; with a chapter on trigonometry, in which great care is taken to confound definitions and principles: the whole repeated at the end of the work in an alphabetical form, &c.' In the days of long title-pages, such should have been the description of the work. The only thing which has been made more clear to us by its perusal is a principle which is stated as a self-evident truth among the axioms, viz. that 'from nothing, nothing can arise.' We proceed to verify these assertions by an examination of the work.

Terms which are completely out of date, if indeed some of them were ever used, are plentifully supplied. We have Lineametry, Planimetry, Stereometry; central point, instead of centre; secant point, for point of intersection; occult line, for dotted line; subtense; angle point, for angular point; curvilineal and mixtilineal angle, trigon, tetragon, quadrangle, decagon, *et hoc genus omne*, rhomboid, trapezoid, and *posited*, for placed. Some of these are wrongly defined, from attention to their etymology, instead of their received meaning; as for example, where it is said that 'a figure of four sides is called a tetragon or a quadrangle,' both these terms being seldom applied except to squares. Also a line is said 'to *touch* a polygon when it passes through a vertex and is exterior to the figure.'

Many of the expressions are unintelligible to children, such as 'extension and magnitude in general;' 'a *line* is a *space* only in length;' 'a point in *geometry of mathematics* is *ideal*, *indivisible*, and *invisible*, and is made a *datum* from which geometrical figures may be more readily worked;' 'a finite line is that which is supposed to *contain a necessary length*.' Again, triangles are said to be 'subdivided according to the relation of their sides and angles.'

Undefined and difficult terms are frequently used in defining others. Among these we find plane, datum, angle, proportion, disposition, demonstration, produced, &c. From many expressions false inferences would be drawn; others would make nonsense in reading them, did not the figures correct the obvious meaning of the words. Thus it is said that geometry was *first* cultivated in Egypt; 'and the *most early* cultivators

of this science were Thales, Pythagoras, Plato, and Euclid: it follows, then, that Thales, &c., were Egyptians, if there be any force in logic. Also the word circle and circumference are mentioned as synonymous terms. 'An infinite line is that which is undetermined, having no precise length.' 'A horizontal line is that which is in a *contrary direction to a perpendicular.*' Here perpendicular means vertical, and contrary means perpendicular. 'A curve line is that which *turns out of its way* by *one or more* deviations:' 'a straight line is that which *lies between its points:*' 'a mixed line is that which is *both straight and a curve:*' 'parallel lines are those which *follow one another at an equal distance:*' 'a concentric figure is that which has the *same centre:*' 'a right *angle* is *equal* to one fourth of a *circle.*'

The following is instanced as a *principle* of trigonometry: 'a triangle is equilateral, isosceles, or scalene, according as its three angles are all equal, or only two of them are equal, or all three unequal.' As if definitions of useless words had not been sufficiently forced upon the pupil, the old words are repeated with omissions and additions at the end of the book. Among them, we find the terms apparent, catenary, cyclograph, gibbous, longimetry, octometer, perambulator, planisphere, polygram, theodolite, and transformation; and these are considered sufficiently elementary matter for a catechism of geometry of five inches by three and a half, sixty-eight pages, large print, interspersed with figures half a page long. Were it worth while, some objection might be raised to almost every question in the book. It may be asked why we trouble ourselves to review what we think so full of faults, without any redeeming quality. The answer is, that the work being one of a series, published by a most respectable publisher, got up in a very neat form, and continually advertised, may be presumed to have considerable circulation, which we honestly confess it is our desire to give solid reasons for reducing. The subject is usually considered difficult, and a catechism being always an inviting object for parents who know nothing of a science, one on this subject is particularly likely to tempt them. But we would caution them to ask themselves one question before putting this manual of bad phraseology into the hands of their children; do they desire them to get wisdom and understanding, or words and phrases? Will learning by heart conventional terms, form habits of reflection? If so, heraldry is the science for children, for it consists of nothing else.

We shall only notice one more of these catechisms, a Greek Grammar. The title of it is 'Catechism of the Greek Accidence, adapted to the most approved Grammars; second

edition;' it is in fact the Eton Grammar turned into question and answer. Now the value of the catechetical system seems to us, not to depend on a *particular set* of questions (unless a set of questions should be made as a kind of direction to young teachers), but on the *mode* in which the teacher puts the question, for the purpose of presenting the matter of every lesson in a new and clearer form. Elementary principles should never be taught in any department of knowledge by asking a question, the nature and extent of which the learner cannot judge of, and then making him commit to memory the answer, which is equally unintelligible. Whatever objections there may be to a grammar like the Eton, they apply much more strongly to Mr. Pinnock's, except that it has the advantage of being in English.

The Grammar is called a 'Catechism of the Greek Accidence;' but it ends abruptly with δηλ-οομένου,-ουμένου, the participle of one of the contracted verbs, altogether omitting the verbs in μι, such as δίδωμι, &c. The only verb in μι that is given is εἰμὶ, *I am*, under which we find the future participle ἐσόμενος translated, *about being*. As the Grammar really does contain many of the facts found in the 'most approved grammars,' we can on this head only blame it for omissions, such as the verbs in μι, a very considerable one, however, and for the *manner* in which grammatical knowledge is presented. But there are some novelties. In pp. 4 and 5, the student is informed what is the mode of pronouncing the Greek letters by the modern Greeks, after he has been instructed that the English pronounce them in general as they do the corresponding letters in their own language. In a Grammar of seventy-two *very* little pages, which omits the verbs in μι, we think that a *whole* page on the modern pronunciation of Greek, to be committed to memory, or even to be read, is a very gross absurdity.

The Grammar, in the declension part, omits nouns of the form Λεὼς, Ἄθως: the adjective εὔγεως, however, is declined at p. 32.—The following extract contains a little novelty, and is a fair specimen of the manner of the book. 'Q. How are adjectives of the third sort declined?—A. Adjectives of the third sort, being of the masculine and feminine gender, and having but one termination, are regularly declined after the third declension of substantives.—Q. Can you give a few examples?—A. Yes: Ἅρπαξ, Rapacious, &c. &c., ἐπιθυμηθὴς, covetous.—Q. Have not these the neuter?—A. No, &c. &c.' This word, ἐπιθυμητὴς, which we suppose to be intended, is explained in a new way, and one equally applicable to δικαστὴς, and other words like it.

We do not make any remarks on the number of non-existing words in this book, such as *ῥέω, I speak, θέω, I put, φθάω, I anticipate;* because they are really found in other Grammars also, which are among 'the most approved.'

Education is the order of the day. But it will be a curse, instead of a blessing, unless it create good habits of mind, since the form, without the substance and effects, leads to the conceit and blind presumption which have given rise to the proverb, that a little knowledge is a dangerous thing. No true knowledge is dangerous in any quantity; it is the affectation which, in this case as in many others, brings shame upon the reality.

Note.—The number of Pinnock's Catechisms, on various subjects, is about eighty. Among other matters, they treat of 'Agriculture,' 'Electricity,' 'Hebrew Grammar,' 'Heraldry,' 'Medicine,' 'Painting in Oil,' 'Universal History,' 'Theology,' 'Geology,' and 'General Knowledge,' &c. &c. &c.

There are also forty-two Catechisms of 'County Histories.'

MISCELLANEOUS.

FRANCE.

French Institute.—On the 25th of August, 1830, the Académie Française, at a grand session, awarded the prizes instituted by M. de Monthion for works calculated to have the most beneficial effect on the public morals. A first prize of 8000 francs was awarded to J. B. Say, for his work, entitled "Cours complet d'Economie Politique pratique;" and a second of 3000 fr. to Charles Lucas for his essay, "Du Système Pénitentiaire en Europe et aux Etats-Unis." A third prize of 3000 fr. was awarded to M. de Norvins for his poem, "De l'Immortalité de l'âme:" this is the first time, it is believed, that the Monthion prize has been awarded to a poem. The fourth prize was awarded to M. Alissan de Chazet, for his book, entitled "Des Abus des Lois et des Mœurs." This last work, besides being an inferior essay, contains views and opinions quite at variance with those expressed by Say and Lucas. For example, M. Chazet is the advocate of capital punishment in cases which fall short of the culpability of the crime of murder, and in his chapter on usury he is at variance with Say. It is not possible to reconcile the judgments which the Academy has passed by re warding such different works.—*Le Globe, August* 27, 1830.

Paris.—The numismatic collection of the late M. Gossellin is to be sold at Paris the 17th of this month (Jan. 1831). Most of the pieces are Greek silver coins, and were selected by their learned owner to illustrate the mode of fabrication and the progress of the art. There is no complete series of the coins of Greek towns in this collection, which is more remarkable in this department for the rarity and value of its pieces than for the number. One of the Sicilian coins of the town of Zancle has the legend ΔΑΝΚΛΑ, which is a form very uncommon. (See Mionnet.) M. Gossellin has also left a collection of silver Roman medals, consisting of more than 5000 pieces, all in good preservation, and comprehending a period from the time of Pompey to the taking of Constantinople.—*Notice par Raoul-Rochette.*

French Gymnasia.—The revived military mania has extended itself even to scholastic institutions among our French neighbours; for we observe that the Minister of Public Instruction has directed that the academical subdivisions of the day, observed in the interior of the schools, shall be announced by *beat of drum*;—item, that the superintendent of the establishment shall select one, and in case of need, two *serjeants* for each class, from the number of such pupils as have distinguished themselves by attention to their studies, and general good conduct; and lastly, that during the hours of recreation, on every Thursday, the pupils shall perform *military exercises*, under the superintendence of a master, specially appointed for that purpose.

Strasbourg.—The ancient university of Strasbourg possessed at one time, in Brunck, Oberlin, and Schweighæuser, a triumvirate of learned men seldom found at one place at the same time. Brunck and Oberlin died many years ago, but the death of Schweighæuser is recent enough to attract some attention. His laborious life, and his services to Greek literature deserve commemoration.

John Schweighæuser was born at Strasbourg in 1742; and in his native town he received a more complete and varied education than most men have been able to procure. For ten years he followed the courses of the different professors, applying himself with unwearied diligence to almost every branch of knowledge. Besides Latin and Greek, he studied Hebrew and Arabic, with mathematics, the various departments of physics, and the science of morals, and of the mind. He afterwards visited Paris, and the principal universities of Germany; at Leipsig he studied Arabic and Greek under Reiske, whose wife was a great proficient in these studies, and with the other pupils attended her husband's class. Schweighæuser spent also some time in England at London and Oxford, examining the public libraries and enjoying the acquaintance of many distinguished men. On his return, after an absence of more than two years, he was appointed, in 1770, adjunct professor of logic and metaphysics, which chair he held till 1777, when he was elected professor of Greek and Oriental languages. Though he was not inactive as a professor of metaphysics, as we may see from his extant essays, it is as an editor of Greek authors that he has gained his chief celebrity. From the year 1777 to the end of a very long life he was engaged in active instruction, and in the labour of correcting and explaining Greek texts. Dr. Musgrave had designed to give a new edition of Appian, and applied to Brunck for information about the variations of an Augsbourg MS. Brunck referred the doctor to Schweighæuser, into whose hands the labour of the new edition ultimately fell. It was published in 1785, and established at once for the editor the reputation of an industrious and skilful critic. In 1789 he published some observations, grammatical and critical, on the Lexicon of Suidas, and these were soon followed by the first volume of his Polybius. The labour that this undertaking required was partly interrupted by the political troubles of the period, in which, though he took no part, he was exposed to suspicion and annoyance on account of his supposed hostility to republican principles.

The ninth and last volume of his edition of Polybius appeared in 1795; and Schweighæuser returned from an exile into which he had been driven by the violence of the revolutionary party. On the opening of the central school of the Lower Rhine, Schweighæuser was appointed professor of ancient literature, and he gave instruction in the Greek and Arabic languages. As a teacher he was zealous, persevering, and successful, inculcating the importance of industry and method, which he exemplified in his own conduct. Somewhat later, when the Protestant Academy of Strasbourg took the place of the ancient university, he was restored to his chair, from which he continued to teach, though the university was now reduced

to the rank of a mere seminary. On the formation of the French Institute, he was appointed a corresponding member; and afterwards, when it was re-organized and divided into the four academies, he was named a member of the Academy of Inscriptions and Belles Lettres.

His next important publications were the Remains of Epictetus, and a new edition of Athenæus, which was undertaken at the request of the Typographical Society of Deux-Ponts. This edition owes much of its value to a Venice MS. which once belonged to Cardinal Bessarion, and which Schweighæuser discovered to be that from which all the other known MSS. of Athenæus are derived. In 1807 the new edition, in 14 volumes, octavo, was completed. Besides these laborious undertakings, Schweighæuser had innumerable engagements as a teacher, as conservator of the public library, and as an active correspondent with men of learning. His habits of order, punctuality, and industry enabled him to accomplish all. In this short notice we pass over many minor events of his literary life to mention the last and one of the most important of them. His edition of Herodotus he commenced in 1806, at the age of 64, and, after ten years of labour, he completed it in 1816, in his 74th year. This edition, founded on a more accurate examination * of the MS. than that of Wesseling, contains the various readings, the translation of Laurentius Valla improved, and the entire notes of Wesseling and Valcknaer, with some extracts from those of Gronovius, and remarks by the editor. A lexicon to Herodotus, published some years later, when he had passed his 80th year, completed the critical labours of this veteran scholar. Among the tokens of regard which he received, we should not omit to mention that the London Royal Society of Literature presented him, in 1826, with one of their gold medals, in testimony of their respect for his services to Greek learning. He did not discontinue his functions as a teacher of Greek till his 82d year, when he retired from his labours, and enjoyed for several years the pleasures of social intercourse, of easy study, and the respect and affection of his descendants. He died in January, 1830, at the age of 87 years, 7 months. Schweighæuser was a man of sound and extensive learning, zealous in the discharge of all his duties, firm, upright, and beloved by those who knew him. —*J. H. Schnitzler. Revue Encyclopédique, August*, 1830.

GERMANY, *&c.*

Oriental Literature.—Professor Freytag is unremitting in his zeal for the promotion of Arabic literature in Germany. His edition of the *Hamasa*, and the first part of his Arabic Dictionary (containing the letters *Eliph—Kha*) are already in the hands of all Arabic scholars. His latest publication is a learned work on Arabic Metrics (*Darstellung der Arabischen Verskunst*, Bonn, 1830, 557 pp. 8vo). He is now about to print the well-known work of Ebn Arabshah, entitled *Fakihat el Kholafa*.

* Professor Gaisford has since collated the Sancroft MSS. more accurately.

Professor Bopp has just presented us with the first part of a new edition of his *Nalus*, by the first publication of which, in 1819, he rendered so signal a service to Sanscrit literature. On comparing this new edition with the old, we observe many great improvements, particularly in the Latin translation. In reprinting the original text, Professor Bopp adheres to the principle laid down by Baron William Humboldt, of entirely dissolving the *Sandhi* (or euphonic assimilation and coalescence of the final and initial letters of words following one another, through which, in Sanscrit manuscripts, each verse has the appearance of only one entire word), and exhibiting each word in its detached and isolated shape. But notwithstanding the luminous arguments adduced in support of this mode of printing Sanscrit texts, by Baron Humboldt, and notwithstanding the great convenience accruing from this plan to the reader, who can now, at one glance, recognize the different notional elements of a sentence, expressed by as many distinct individual words, we cannot, for reasons which space forbids us here to detail, but consider it contrary to the true character of the Devanagari alphabet, which is originally *syllabic*, and thus materially different from the alphabets to the use of which we are accustomed, and in which syllables are written by a *juxtaposition* of signs expressive of the consonants and vowels.

Dr. Benary, a distinguished pupil of Professor Bopp, and now attached as a private lecturer to the University of Berlin, has given to the public a very good edition of the *Nalodaya*, a very artificial and difficult Sanscrit poem, which is generally ascribed to Kalidasa, but which can hardly have been written by the immortal author of *Sakuntala*, and of the *Raghuvansa*. Dr. Benary has given both the text and scholia from the Calcutta edition, printed in 1813, but purified from a great number of mistakes, and with the Sanscrit words separated in the manner just adverted to; accompanying the whole with a very close Latin translation, and critical notes, which afford ample proof of much philological skill.

The latest number of the periodical published by Prosessor von Schlegel, under the title *Indische Bibliothek*, contains a review of Bopp's Grammar of the Sanscrist Language, written by Professor Lassen, of the University of Bonn. Mr. Lassen endeavours to shew, and we think with very good success, that it is essential for the improvement of our grammatical knowledge of the Sanscrit language, to study the works of the native Indian grammarians, above all the aphorisms of Panini, and the commentaries thereupon.

The printing of the second volume of the Sanscrit text of Schlegel's *Ramayana* is rapidly advancing.

Professor Lassen's critical commentary to the edition of the *Hitopadesa*, lately published by him and Schlegel, is preparing for publication.

M. Chezy's elegant edition of *Sakuntala* has at last appeared. The Sanscrit text is accompanied with a new French translation, and copious notes; and, in an appendix, M. Chezy has also given the episode from the *Mahabharata*, which furnished Kalidasa with the subject of this much admired drama.

The fifth section of M. Eugene Burnouf's lithographed edition of the *Vendidad Zade*, a part of the *Zend Avesta*, has just appeared. We can as yet only admire the beautiful execution of this work, which is a strict *fac-simile* of the Paris manuscript. It is to be hoped that M. Burnouf's commentary will soon follow, and place the understanding of these important documents of the ancient Persian religion nearer within our reach.

"The old method of classical instruction, by means of interlineary versions, has been revived in England by *Locke*, who has caused to be printed, and has for sale, at the shop of the bookseller to the London University, the following Greek and Latin books, with interlinear versions, intended for the first course:—Phædrus; Ovid's Metamorphoses, 1st book; Virgil's Æneid, 1st book; &c. &c.; and in Greek, select Dialogues from Lucian; select Odes of Anacreon; Xenophon's Memorabilia, &c. The German language is said to be taught the same way. See *Literary Gazette*, 1830, No. 685."

The above is an extract from the "Jahrbücher für Philologie und Pædagogik," of Jahn, for whose benefit we make the following remarks. The Locke alluded to is the celebrated John Locke, long since dead, whose system of teaching languages has been revived in England by Mr. John Taylor, bookseller and publisher to the London University. Mr. Taylor's interlineary versions are *not* used in the University of London, as the German journal seems to imply. We do not mean by this to pass any opinion on Mr. Taylor's books or plan: we simply state the fact. The students who enter the University must be qualified to read good authors without the aid of interlineary versions.

Allgemeine Schulzeitung, *Darmstadt*, *July*, 1830.—This journal attracts our attention to a curious circumstance in literary history. Dr. Covel, Master of Christ's College, Cambridge *, was once chaplain to the English embassy at Constantinople. During his residence in that city, T. Gale, well known as a Greek scholar, sent him the titles of Greek MSS. of authors, either lost, or only known to us in part, which "were believed to be found in the libraries at Constantinople." Gale does not say where he got this catalogue. This letter to Covel, containing the list of MSS. (dated Nov. 26, 1672), is preserved in the Harleian Collection, No. 6,943, Letter 22. The following is the general title to the MSS. which are given, with their Greek names:—*ταῦτα τὰ βιβλία σώζεται ἐν ταῖς τῆς Κωνσταντινουπολέως βιβλιοθήκαις.*

Then comes a pretty long list, in which we find, besides some books on biblical learning and church history, the complete History of Dion Cocceius, twenty-four plays of Menander, all Euripides, Philemon, Aristophanes, and Sophocles. The MSS. that have been enumerated are not specified as belonging to any particular library;

* The German Review says, "of Christchurch College, Oxford." This, and one or two other trifling inaccuracies, have been corrected by a reference to the original letters.

but the other MSS. in the list are assigned to the libraries of the Patriarch, of Constantine Barinus, Antony Cantacuzenus, Manuel Eugenicos, and James Marmoretus.

Gale says further, in the same letter, "As for Menander, I was told in Cambridge (by one Jeremias Byzantius, now at Constantinople, and I hope known to you), that he has seen this book, and read it in the library of the Patriarch, as I remember."

The same article refers to a letter from Brother Robert Hungtinton (dated Aleppo, Feb. 24, 1670) to Covel, in which Hungtinton says, that he found the whole work of Diodorus and Polybius in the library at Patmos. Hungtinton's letter is No. 77 in the same collection. Perhaps it may be worth while to make a more minute search at Constantinople.

Munich (*München*). The University of *München* had, in the winter of 1829-30, 1854 students, of whom 192 were foreigners; and 86 university instructors, of whom 51 were professors, 10 honorary, and 25 private teachers.—*Jahrbücher, &c. von Jahn.*

The new rector, Dr. Allioli, delivered his inaugural oration on the 26th of November, before a numerous assemblage of the professors and students of this University, in the academical saloon. He dwelt at length on the means which universities afford of rearing a scientific education on the ground-work of religious principle, and referred to the academical statutes as a memorial of the paternal wisdom of his Bavarian Majesty, their founder. He observed, that the progress which the members of the University had made in the several branches of science and learning, was in perfect unison with the spirit and object which such an institution professed; and he then entered into an impressive consideration of the necessity of adding to scientific exertions, in which he acknowledged that the University had highly distinguished itself, the far more important duty of cultivating pure morals and sound religion,—a duty of which the ameliorated conduct of his young auditory evinced that they were acquiring a gradually deeper and improving sense.

Up to the 27th of November, six hundred fresh students had matriculated for the winter-session, being fifty more than had entered last year.

Königsberg.—According to the printed papers this University had, in the winter of 1829-30, 416 students, of whom 215 studied theology, 114 jurisprudence, 19 medicine, 21 philosophy, 24 philology, 13 mathematics, 9 financial science (*cameralwissenschaften*), and 1 technology.—*Jahrbüch.*

Coburg.—The course of studies for the summer of 1830, in the Gymnasium of Coburg, though there are only three classes (*Selecta, Prima,* and *Secunda*), is very comprehensive, and of a high character. The Latin, Greek, Hebrew, German, French, English, Italian, and Spanish languages are taught (the three last-mentioned only privately); history, antiquities, mathematics, natural history,

and geography; the doctrines of religion, philosophy, and drawing. We may judge of the high position which the Gymnasium assumes by what follows. In Latin, and in *Secunda*, the instruction begins with Terence, Cæsar (Bell. Gall.), Cicero's Cato Major, and Becker's Elegeia Romana; and, in *Selecta*, ends with Cicero's Philosophical and Rhetorical Writings, and Horace's Epistles; while in *Prima* are read Horace's Odes, Livy, and Cicero's Orations.

The Greek instruction begins with Xenophon's Anabasis, Homer's Odyssey, and Greek Grammar; and ends with Plato, Thucydides, and Euripides. History is taught completely; and in the philosophical department, even æsthetics are included; while in mathematics, in *Secunda* and *Prima*, only arithmetic; and in *Selecta*, only algebra, are taught.—*Jahrbüch.*

BERLIN.—*The Geographical Reliefs of K. W. Kummer, of Berlin.*—These reliefs differ from common globes and maps most essentially in the following particulars: instead of representing the hills and valleys by etching, they exhibit real elevations and depressions, corresponding to those on the earth's surface. The mountains and valleys are thus made visible and palpable; the coast, also, is clearly raised above the level of the sea, and its peculiar character, whether of lofty rock, or level sand, is accurately delineated. The high table-lands, like those of central Asia, are placed on a higher level than the flat lands near the coasts; and the rivers and lakes are seen confined within their channels and basins. Not only is the general direction of the hills clearly laid down, but also the varieties in their steepness, their declivities, and the great isolated summits are delineated in their proper proportions. Appropriate colours, too, are used; the eternal snow of the highest mountain-tops, and the ice of the polar regions, are represented white; the sandy deserts yellow; the steppes brown, or a yellow-brown; the stony, barren regions grey and uneven; the forests green; and all water is made blue. The material employed is paper of a fine and light kind, not liable to be broken; the weight of one of the largest reliefs is very small, and they may be handled without any risk of damaging them. Names are also written on these reliefs, and the clearness even of the smaller characters is surprising.

This method of Kummer has been applied by him both to globes and to flat surfaces, or relief-maps (Relief-Erdkugeln und Landkarten), of various sizes. Amongst them are a large globe of 26 Paris inches in diameter; one of 16, and another of $2\frac{1}{2}$. Portions of the great sphere may be bought separately, it being divided into six parts. Europe may be had by itself, price 11 or 12 German dollars;* Asia for 16 or 17. If the names are omitted, the parts are, respectively, about two dollars cheaper. There are relief-maps of Germany, of the Island of Rügen, of the Mountain-Range of Mont-Blanc, and of France. The map of France is on a scale in which the lined measure is $\frac{1}{3,000,000}$ of the real lineal measure on the earth's surface; it is 24 Paris inches long, 21 broad, and comprises the country from Cologne and Dover as far as Figueras and Geneva

* The German dollar is about 3s.

in the direction of north and south. It comprehends the Pyrenees, the whole of Switzerland, and the valley of the Po. The price of this is not mentioned.

The price of the map of Germany is, without names, 8 or 10 dollars; with names in German characters, and with the addition of the places where the rivers are crossed, and of the parts that are navigable, the cost is 14 to 16 dollars; with the political divisions added to the above, the price is 18 to 20 dollars.

It has been objected to the method of Kummer, that the true ratio between the lineal horizontal and vertical measures is not preserved. This is true: but though the real ratio between the horizontal and vertical measure is not observed, the proportion between the various *vertical* heights, among themselves, is strictly adhered to, and it is all that is necessary. It would not be possible to represent mountains and valleys with any degree of clearness, in such a map as that of Germany, for example, without giving to the heights of the hills a greater elevation than is due to them, compared with the horizontal measures; and if the *true* horizontal and vertical proportions were observed, it would only be practicable to delineate, by the aid of relief, very small districts. The objections made to Kummer's reliefs may be made to common maps also, where the breadths of rivers are often greater on the paper than they ought to be.

The Prussian Universities and Schools.—The sums assigned by the Prussian government for the maintenance of their six universities in the year 1829 were as follows.

Berlin (independently of 5540*l*. paid for the support of scientific institutions)	£13,150
Bonn	14,830
Breslau	10,520
Halle	10,280
Königsberg	9,010
Greifswalde	8,320
Total	£66,110

These sums go to provide for the current expenses of each institution, and include certain allowances to indigent students, as well as the official salaries to the professors, whose remuneration, however, is principally derived from the fees paid for attendance upon their prælections.

The *gelehrte schulen*, or "grammar schools," are also establishments subject to the control of the government, and supported essentially at the expense of the state. Their number in 1829 was, for *Eastern Prussia*, 8; *Western Prussia*, 6; *Brandenburg*, 18; *Pomerania*, 6; *Silesia*, 21; *Posen*, 3; *Prussian Saxony*, 22; *Westphalia*, 19; *Juliers, Cleves*, and *Berg*, 12; and the *Nether Rhine*, 17. In all, 132.

University of Berlin.—On the 30th of December the students frequenting the celebrated Professor Hegel's lectures presented him with a gold medal, in testimony of the grateful sense they entertained of the judgment and ability with which he had discharged the duties of Rector of the University. The front of this medal exhibits an excellent likeness of Hegel; and the reverse, the reconciliation of philosophy with religion. Independently of the interest it derives from circumstances, as a mere work of art it does honour to the talents of Drake, a pupil of Professor Rauch.

M. Abrahamson, the great scholastic philanthropist of Denmark, who was the first to introduce the blessings of mutual instruction into that country, states a most interesting fact as connected with the spread of education, and, we cannot doubt, with the *march of intellect.* Out of a single school, founded in the early part of the year 1819, seven had sprung up before it closed; in 1820 the number had increased to 11; in 1821, to 15; in 1822, to 35; in 1823, to 244; in 1824, to 605; in 1825, to 1143; in 1826, to 1545; in 1827, to 2003; in 1828, to 2302; and at the end of last year (1829), to 2646!

LOW COUNTRIES.

Holland.—Died, on the 27th of April, 1830, at her country-house, near Leyden, the widow of Wyttenbach. In 1827 she received, from the University of Marburgh, the diploma of Doctor. She is well known by her philosophical works, and her zeal in favour of the cause of the independence of Greece.—*Jahrbüch, von Jahn.*

Netherlands.—The six Universities of this kingdom received from the government, during the year 1829-30, the sum of 480,000 florins. Out of this, Löwen (Louvain) had 120,000 fl.; Lüttich (Liege) 70,000 fl.; Leyden 80,000 fl.; Utrecht, 70,000 fl.; Ghent 70,000 fl.; and Gröningen 70,000 fl.

RUSSIA.

The University of Petersburgh, which in 1826 had only 90 pupils, reckoned 177 in the year 1829. The number of students in the eight governments, comprised within the university district of Petersburgh, was 10,200.

The number of pupils in the University of Moscow, which celebrated its seventy-fifth anniversary in Jan. 1830, was 660 during the scholastic year of 1829, without reckoning 18 candidates, and 98 medical students, who were continuing their studies there. The whole number of pupils in the 296 places of education, which are distributed over the eleven governments comprehended in the university district, was 15,601. The following table gives some more precise information.

Number and Kind of School.	Number of Pupils.	Number and Kind of School.	Number of Pupils.
11 Gymnasia	1,089*	University of Moscow	716
94 Provincial Schools	7,506*	Boarding-School for the Nobility, Moscow	272
134 Parish and Primary Schools.....	4,945	High School of Demidof, at Iaroslavle. .	79
54 Boarding-Schools and Private Schools	Boys, 362 Girls, 632	Total. . 296	Total, 15,601

The number of pupils in 1829 was 1,300 more than in 1828. The number of professors and masters was 827, being about 1 for every 18 pupils.

The other Universities of Russia—that of Abo, transferred in 1828, after the burning of the town, to Helsingfors; Petersburg, Kazan, Kharkof, Dorpat, and Wilna, do not publish similar documents, which is much to be regretted, as they would form the basis of a comparison between the number of pupils and the whole population in any one government, and all through the empire. All that has hitherto been published on this subject, in the journals, is very inexact and incomplete.—*Serge Poltoratzky of Moscow.*

A Table of the Eleven Governments of the District of Moscow, classed according to the Number of their Pupils.

Governments.	No. of Pupils.	Governments.	No. of Pupils
1. Moscow	3,909	7. Tver	1,187
2. Riazane	1,395	8. Iaroslavle	1,087
3. Toula	1,389	9. Novgorod	1,047
4. Vladimir	1,378	10. Tambof.......	1,009
5. Orel..........	1,371	11. Kostroma.....	634
6. Voronège	1,200	Total. . .44.	Total 15,601

Revue Encyclopédique.

The whole Russian empire is divided into seven university districts, the Grand Duchy of Finland being included, and each district

comprehends a larger or smaller number of governments and provinces. A curator is at the head of each district, and the minister of public instruction has the general superintendence. Besides a University in each district, there are also at least as many Gymnasia as the university district contains governments, and sometimes more; secondary schools and primary schools are still more numerous.—*Schnitzler, Essai d' une Statisque Générale de l' Empire de la Russie.*

The whole population of the eleven governments of the Moscow university district is 13,858,100, according to Schnitzler's tables, which gives a result of about one person in every 824, who receives instruction in the schools or colleges. The government of Kostroma, which is watered by a north-western branch of the Don, contains the greatest population and the smallest number of scholars, one person in every 2,300 receiving the benefits of instruction. The population of Kostroma is purely Russian.

The number of French journals published in Russia at present (1830) is eight, of which four are published at Petersburg, one at Moscow, and three at Odessa. Some of these journals are newspapers, appearing several times a week; others are published monthly, and are appropriated to scientific and practical objects. One of the Petersburg journals, and two of the Odessa, are published both in French and Russian.—*Revue Encyclopédique.*

ITALY.

There appeared in Italy, in 1829, a work entitled, "Vie d'Agricola par Tacite, traduite par N(apoleone) L(uigi) B(onaparte)." Florence, 1829.

A translation of Hallam's "History of Europe, in the Middle Ages," by M. Leoni, is announced by a publisher at Lugano. The same publisher also gives notice of an Italian translation of Mill's "Elements of Political Œconomy," from the last English edition.

GREECE.

State of its Schools (from Mr. Barker's published account).—It is computed that there are in Greece about 20 schools, which contain from 50 to 100 scholars each: the rest are not so numerously attended. The asylum for orphans at Ægina contains 500 children; the great school occupies one of the chief churches, but it is not large enough for the pupils. In this school ancient Greek, geography, and geometry are taught, together with theology.

Mr. B. represents the ardour of the young Greeks for instruction to be very great, in spite of all the difficulties which they have still to struggle with. Sometimes the children may be seen studying their lessons under an old wall. It frequently happens that the miserable houses are not large enough for all the classes, some of which take their station in the open air. Books are scarce: in a school of 40 or 50 boys it would be difficult to find an entire book. Some are obliged to be satisfied with half a one.

In the elementary schools it appears that the system of mutual instruction is adopted.

At Napoli di Romania, Mr. B. found 150 scholars in a Turkish mosque; and at Demitrana, in Arcadia, a Greek school of 50 boys, and one of mutual instruction containing 110. Demitrana had a good library, but the soldiers in the late wars used all the books to make cartridges. In the little island of Syra, Mr. B. found that an American missionary had been very successful in establishing the schools of mutual instruction. Korti, in the isle of Andros, has a Greek school, founded in 1813, with forty pupils, who learn ancient Greek, theology, mathematics, and geography. An elementary school for 300 children has just been built there. At Andros, or Kato Castro, the capital of the island, there are also two schools, one called the Greek or Hellenic, the other a school of mutual instruction. The islands of Mikoni, Naxia, and Paros, have also their schools. Before the revolution, Siphnos had an excellent school, which furnished Greece with several bishops, but it is now in a less flourishing state. Serpho and Thermia are both well provided with schools. Since the visit of Mr. B. the elementary schools have greatly increased under the care of Capo D'Istrias, and are now not fewer than 400: Ægina alone contains 22. The *Courier de la Grèce* (1830) announced the whole number of students in the Peloponnesus and the islands to be 7824. The children in the elementary schools learn to read and write, and acquire some small knowledge of grammar and arithmetic, which is as much as their masters can teach them.—*Journal d'Education.*

Ægina, 17th Dec. 1829.—The President Count Capo d' Istria appointed three commissions. The first was instructed to prepare without delay a Catechism and a Prayer Book. To the second commission was intrusted the task of preparing a Greek Grammar and an Anthology: the Diakonus Costantes, with Professors Gennadios and Benthilos, form this commission. The third commission was instructed to revise the works that had been translated for the use of the schools of mutual instruction, and to give in a report on this branch of public education.—*Allgemeine Schulzeitung, Darmstadt, March*, 1830.

The press at Malta, belonging to one of the London religious societies, is actively employed in printing cheap books in modern Greek. Most of them are on religious subjects, or closely connected topics. For example, there was published in 1830, intitled *Νεαρὰ Λύρα*, or the Youthful Lyre, a collection of sacred songs, in imitation of those of Watts and Mrs. Taylor. In the society's list we find also an Epitome of English Grammar, and a Manual of Geography, intended for the use of Greek youth.

Smyrna, 1830.—A society in the U. S. of North America has established a Protestant school at Smyrna, in which Latin and the modern languages are taught. Children of all religious denomina-

tions are admitted. As the society pay the director and teachers of this school, the sum required from the pupils is small; and the children of poor parents are taught gratuitously. Mr. Brewer, the director, gives also instruction in English at the Greek gymnasium of Smyrna.

UNITED STATES.

There are in the United States of North America 49 incorporated colleges or universities. Though the returns are incomplete from some of them, the following table will shew many important statistical facts:—

The number of instructors in 32 colleges is	217
The number of graduates in 30 colleges, in 1828, was . .	652
The number of under-graduates in 33 colls. in 1828-9 . .	2,809
Number of volumes in 30 college libraries . . .	128,118
Number of volumes in 25 students' libraries	66,730

Yale College, in Connecticut, and Harvard University, in Massachusetts, have the greatest number of teachers and pupils; there being in the former 16 teachers, and 324 students; in the latter 15 teachers, and 254 students. The largest college library is that of Harvard, which contains 30,000 volumes; the next is that of St. Mary's College, Baltimore, which has 10,000 volumes. Besides these, there are four colleges which have libraries to the amount of 8,000 volumes. Out of the whole list of colleges, 43, a return is made of the name and title of the president or provost of 40; from which it appears that the presidents or provosts of 36 colleges are clergymen.

There are also 18 theological seminaries in the United States, belonging to the different denominations of Christians. Out of these, 11 date their origin since 1820, and 17 since the year 1800. The whole number of students in 15 of them, in 1829, was 599, being an average of 40 pupils for each seminary.—*From the Journal of the American Education Society.*

A catalogue of the library of Harvard University, in Cambridge, Massachusetts, was published in 1830, in 3 volumes, octavo. From this catalogue it appears that the library now contains more than 30,000 bound books, and several thousand tracts. In 1790 there were only 12,000 volumes. The first two volumes of the catalogue contain a list of all the books in *alphabetical* order; and the third consists of a systematic index, or a classed catalogue of the whole.—*Christian Examiner, Boston, U. S.*

There are many other considerable libraries in the United States; as at Philadelphia, Washington (the Congress library), and other places; but we believe that we are right in stating that the library of Harvard University is at present the most extensive.

American Education Society.—The following extract from a notice that appears in one of the numbers of the Society's Journal, will shew the pains that they take to obtain exact statistical informa-

tion. "In consequence of our great desire to be strictly *accurate* in statistical accounts, we have uniformly taken the pains, and been at the expense, to send *blank schedules* to the several colleges, containing places for all the items to be found in our published views, and have requested that they might be filled up by the officers of the institution, or by some responsible correspondent, and then forwarded for publication."

EGYPT.

Education in Egypt, under Mohammed Ali Pacha.

Elementary School at Cairo.—600 boys, Turks and Arabs, are taught the Arabic, Turkish, and Italian languages, drawing, arithmetic, and geometry, military exercise, and the art of printing.

Military College at Dgiaad-Abad, four leagues north of Cairo, on the main road to Syria.—Course of studies:—1st year. Arithmetic, drawing figures and landscape, French language, manual and platoon exercise.—2d year. Geometry, camp fortification, topography, and battalion exercise.—3d year. Trigonometry, permanent fortification, map drawing, reconnoitring, and field manœuvres.—4th year. Physics and chemistry, pure mathematics, geography, history, strategy, engineering, hydraulics. Out of this college, those who make most proficiency are promoted to commissions in the engineers, artillery, and staff The rest are appointed to the line.

Medical School at Abuzebel, near to Dgiaad-Abad.—About 110 Arab pupils are taught pathology, chemistry and pharmacy, surgery, and botany, and also hear clinical lectures. A hospital is attached to this school.—*From the History of the Regeneration of Egypt, by Jules Planat, Paris*, 1830.

CAPE OF GOOD HOPE.

The College of Southern Africa, established at Cape Town, opened in October, 1829. The branches for which teachers are already engaged, are English, Dutch, French, Latin, and Greek, writing, arithmetic, geography, astronomy, mathematics, and mechanics.—*Journal d'Education*, 1830.

BRITISH.

Cambridge, Dec. 17.—Prize Subjects.—The following are the subjects for the present year:—

1. The Chancellor's gold medal for English poetry. "The attempts which have been made of late years by sea and land to discover a north-west passage."

2. The members' prizes of 15 guineas each for Latin prose composition:—

(1) For the Bachelors, "Utrum boni plus an mali hominibus et civitatibus attulerit dicendi copia?"

(2) For the Undergraduates, "Utrum fides Punica ea esset qualem perhibent scriptores Romani?"

3. Sir W. Brown's gold medals:—

(1) For the Greek ode, "Granta Illustrissimo Regi Gulielmo Quarto gratulatur quod in solium Britanniæ successerit."

(2) For the Latin ode, "Magicas accingitur artes."

(3) For the Greek epigram, "Magnas inter opes inops."

(4) For the Latin epigram, "Prudens simplicitas."

4. Porson prize:—

Shakspeare—*As you Like It.*—Act 2, sene 1. Beginning, "To-day my Lord of Amiens and myself," &c., and ending, "Native dwelling-place."

N B. The metre to be "Tragicum Iambicum Trimetrum Acatalecticum." These exercises are to be accentuated, and accompanied by a literal Latin prose version.

The Seatonian prizes for 1830 were on the 29th October adjudged to the Rev R Parkinson, M.A., of St. John's College, and W M Praed, Esq M A., Fellow of Trinity College Subject of the poem, "the Ascent of Elijah."

The subject of the Norrisean prize essay for 1831 is "The Proof of the Divine Origin of the Gospel, derived from the Nature of the Rewards and Punishments it holds out."

London University.—Mr. John Taylor, Bookseller to the London University, has just published a Calendar, which contains a short sketch of the origin and constitution of the London University; together with a complete outline of each professor's course and mode of teaching, and the examination questions of last midsummer. It contains also a description of the museums, library, &c., and a list of the proprietors.

London University School.—This school opened on the first of last November; head master, the Rev. H. Browne, M.A. Corp. Christ. Coll. Cambridge. The number of scholars previous to the Christmas vacation was 60. The number entered for the ensuing term is 80.

King's College, London.—The appointments hitherto made by the Council of this Institution are,

J. H. Green, Esq., to the Professorship of Surgery.			
Herbert Mayo, Esq.	,,	,,	Anatomy and Physiology.
Bisset Hawkins, M.D.	,,	,,	Theory of Physic and Therapeutics.
Francis Hawkins, M.D.	,,	,,	Practice of Physic.
The Rev. T. G. Hall, A.M.		,,	Mathematics.
James Rennie, Esq. A.M.		,,	Natural History.

The Rev. J. R. Major, A.M., to the Head-mastership of the Lower Department.

It is confidently expected that both the Higher and Lower Depart-

ment of the College will be opened for the reception of students in the course of the ensuing autumn.

PROPRIETARY SCHOOLS.

The advantages afforded by the formation of proprietary schools having rendered the desire for their establishment very prevalent, we are induced to detail at some length the plan of one of them, in order to facilitate their introduction into those places where a superior and economical course of instruction is required. It is worthy of remark, that this plan was first suggested by a letter of Pliny, the younger*, in which he says, that inquiring of the son of one of his neighbours why he did not study oratory nearer home, instead of going to a distance for that purpose, the father answered, that there were no professors: to which he replied, "Surely it nearly concerns you who are fathers (there were several present), that your sons should receive their education here rather than any where else, for where can they be placed more agreeably than in their own country, or instructed with more safety and less expense than at home, and under the eye of their parents? Upon what very easy terms might you, by a general contribution, procure proper masters, if you would only apply towards the raising a salary for them, the extraordinary expense it costs you for your sons' journeys, lodgings, and whatever else you pay for upon account of their being abroad." It is upon this principle that several schools have been already founded, the rules for the regulation of which have been hitherto very similar. The following is an abstract of those which have been adopted by the proprietors of the Pimlico Grammar School:

SECT I.—*Rule* 1. The institution to be divided into one hundred shares, no proprietor being allowed to hold more than three.

2. Each proprietor to pay £15 for each share he may hold.

3 Each proprietor to pay an annual sum of nine guineas, by equal quarterly payments, in advance, for each share.

4. No person to be considered a proprietor until the aforesaid £15 shall have been paid.

5. Each proprietor to be answerable for all quarterly payments, &c., whether he have a nominee in the school or not.

6. Any proprietor neglecting to pay his subscription, or any other money due, beyond a limited time, to be subjected to a fine, and ultimately to a forfeiture of his share, such proprietor, however, to have the power of appealing to a special general meeting, who may determine whether any and what relief shall be given.

7. Every proprietor to have the privilege of nominating one pupil in respect of each share he may hold, such pupil, if the son, grandson, stepson, brother, or nephew of the nominator, to be admitted without ballot; but if not so related, not to be admitted without the consent of the directors, such consent to be ascertained by ballot.

8. Shares may be bequeathed or transferred; but, in cases of transfer, the grantee to be first approved of by ballot, at a general meeting of proprietors.

* Letter XIII. to Cornelius Tacitus.

9. Any person inheriting a share, or to whom a share may have been bequeathed, to be entitled to nominate a pupil, in respect to such share, the pupil to be admitted by ballot only.

10. Any person obtaining a share as above, may be admitted as a proprietor by ballot; or, if not admitted, the directors to take his share or shares at the price of the *last* transferred share.

11. Any proprietor to have the power of inspecting the minutes of the directors, at any general meeting, on giving previous notice of his intention to the secretary.

12. Interest to be paid to the proprietors, at the rate of four per cent. per annum, as soon as the funds will allow.

Sect. II.—*Rule* 1. An annual general meeting to be held, for the purpose of filling up vacancies in the committee, to receive the report of the preceding year, to pass the treasurer's accounts, and to inquire generally into the affairs of the institution.

2. Propositions for making any alteration in the rules of the institution not to be considered by any general meeting, unless a previous requisition, signed by ten proprietors, shall have been delivered to the secretary, thirty days before such meeting; and such proposition not to be finally adopted, except at a subsequent *special* general meeting.

3. Special general meetings may be holden whenever the directors may deem it necessary, or whenever an appeal is made to the authority of such meeting; or by the secretary, upon the requisition of seven proprietors.

4. Questions, at general meetings, to be decided by a majority, except on occasions of ballotting for a proprietor or nominee, when not less than three-fourths of the votes shall be deemed to constitute a majority.

5. Proprietresses may vote by proxy, to be tendered by a proprietor, who cannot, however, hold more than one proxy.

6. The president to have the casting vote at all meetings.

7. A letter, sent to the usual place of residence of any proprietor, to be deemed sufficient notice.

Sect. III.—*Rule* 1. The affairs of the institution to be under the management and direction of a president, vice-presidents, three joint-treasurers, a secretary, a physician, two surgeons, an architect, a solicitor, and twelve other proprietors, any five to be competent to act as a board of directors.

2. One-fourth of the directors to retire annually, by rotation, and their places to be supplied from the general body of proprietors; the retiring members to be re-eligible after one year. The directors to have power to fill up any vacancy that may occur, during their session, from among the proprietors.

3. The directors to have power to form bye-laws, provided they do not contravene the established laws and rules.

4. The directors to hold their meetings on the third Friday evening in every month, and oftener, whenever they shall consider it necessary.

5. The committee, at their monthly meetings, to choose two of

their body as visitors for the succeeding month, which visitors only are to have right of access to the school, during school hours, with liberty to introduce any other proprietor or stranger.

6. The visitors not to interfere with the internal regulations of the school, but to inspect the school at least once a week, and report to the directors.

Sect. IV.—Regulates the official duties of the president, treasurers, &c.

Sect. V.—*Rule* 1. The following masters to be appointed:—a head master, a second master, an assistant master, a French master, and a drawing master, with such other assistance as may be found necessary.

2. The masters to be elected by the directors, by ballot.

3. The head and second masters to be clergymen, and graduates of Oxford, Cambridge, or Dublin.

4. The masters not to be subject to removal, except on account of non-adherence to the rules of the institution, inability, incapacity, negligence, immoral conduct, &c. Three months' notice to be given by the secretary to any master intended to be removed, except in case of flagrant misconduct, or gross immorality. Any master, intending to resign, also to give three months' notice

5. The internal regulation to be under the management of the head master.

6. and 7. The head master to keep a register of the scholars, and of the progress made by them in their studies, which register shall be open to the inspection of the visitors, and produced to the directors, at their periodical meetings.

8. The head master to report what books, mathematical instruments, &c. are required for the purposes of the institution; and also deliver an account of such books, instruments, &c. as, having been lost or wilfully destroyed by the pupils, ought to be charged to them.

9. The head master may suspend any of the other masters, for misconduct, except the second; but immediate notice to be given thereof to the secretary, in order to its being submitted to the directors.

10 and 11. The French and drawing masters to attend at such times as the head master may appoint, subject to the approval of the Directors.

12. The head master and second master are allowed to take boarders, who are scholars of the institution, but none others; the head master not to take more than fifteen, and the second master not more than ten.

13. The head and second masters, and assistant, to have the privilege of sending their own sons to the school, without being subjected to the annual payment.

14. The head, second, and assistant masters are to attend in the school-room from nine in the morning till twelve, and from two in the afternoon till five, during the summer half-year; in the winter half-year, the afternoon attendance to close at four.

15. None of the masters to be allowed to perform any duty, &c. which shall interfere with their attendance in the school.

16 The head master only to inflict corporeal punishment; and the cane to be used for that purpose.

17. Any master having cause of complaint relative to the school, to state the same in writing to the secretary, who is to submit it to the Directors.

Sect. VI.—*Rule* 1. No pupil to be admitted under seven years of age, nor until he has acquired some knowledge of reading, writing, and the two first rules of arithmetic.

2. The instruction is to embrace the Latin, Greek, French, and English languages, and literature; composition, elocution, the mathematics, and drawing. Lectures on subjects connected with the arts and sciences to be occasionally delivered by the masters to all the pupils, under the sanction of the committee.

3. A public examination of the pupils to take place in the week previous to the summer vacation.

4. Fifteen days' holidays are to be allowed at Christmas, and five weeks in the summer; at Easter from Good Friday to Easter Tuesday, both inclusive; a half-holiday on Wednesday and Saturday in each week, and his Majesty's birth-day.

5. Any pupil not returning on the day assigned, unless prevented by sufficient cause, to be fined ten shillings.

6. The head master may suspend any pupil for flagrant misconduct, and is immediately to apprise the visitors thereof, in order to its being submitted to the Directors, who may confirm or annul the same. An appeal to lie from the Directors to the proprietary.

Sect. VII.—*Rule* 1. The land, buildings, and other property of the institution to be vested in trustees, elected from among the proprietors.

2. Every transfer or bequest, &c. to be entered in the register of the institution; of which entry a certificate is to be given by the secretary, charging for the same one pound, over and above the stamp duty, to be carried to the general fund.

Such is a sketch of the rules and regulations of a proprietary school; sufficient, we trust, to enable those who, being impressed with a sense of the advantages of the plan, wish to co-operate in forming a similar establishment, to organise it in all its details without difficulty. The salaries to the masters are of course settled by the proprietary; at Rochester they are, for the head master, 350*l*. per annum, for the second master, 180*l*., and for the assistant, 60*l*.

DISTRICT GRAMMAR SCHOOLS.

The proprietary schools established on the principle which led to the formation of King's College, London,—namely, "that instruction in the doctrines of Christianity, as taught by the United Church of England and Ireland, shall form an essential part of the course of education," and which are in connexion with the College, are those of

Hackney.—Head Master, the Rev. E. Churton, A. M.—This

school was opened in the presence of the Lord Bishop of London, and commenced with 102 pupils, on the 2d of October last, it has at present 107; and it is expected that, by Easter next, the whole number of 150 will be completed.

St. Peter's, Pimlico.—This school was opened on the 28th of July last; the present number of pupils is 78; and the applications made for admission after Christmas next, will nearly complete the number of scholars for whom accommodation can be provided. The Rev. T. Sheepshanks, A.M., is Head Master.

Islington.—Head Master, the Rev. J. O. Parr, A M.—The school was opened by the Lord Bishop of London, on the 20th of October last, and the number of students admitted is 67.

Blackheath.—This school will open in the beginning of January next, Head Master the Rev. — Tennant, A.M.; and the applications already made for admission are such as to justify the expectations entertained of its success.

BRISTOL COLLEGE.

At Bristol, the increasing necessity which was felt of obtaining for the youthful part of the population the means of acquiring a literary and scientific education on an enlarged scale, and at a moderate expense, having led to the establishment of an institution, under the title of "the Bristol College," the council appointed by the subscribers have issued an "Outline of the Plan of Education," proposed to be carried into effect, of which the following is an abstract.

"Experience has proved, that a close application to the exact sciences is the best discipline for the mind, and the most suitable preparation for its advancement in the schools of philosophy. The mathematics are therefore justly held to be an essential part of every liberal education.

"As the basis for acquirements in general literature, it is obvious that a sound and tolerably perfect acquaintance with the Greek and Latin languages, and with the classical writers of antiquity, is likewise indispensable; nor can these authors be understood, and read with full advantage, without the study of history, and its subsidiary branches of geography and chronology. Neither can the language and literature of our own country be neglected by any Englishman, who is desirous to hold a respectable rank in society, and to render his other acquisitions really and practically useful.

"It is intended, therefore, by the Council to appoint, in the first instance, a Principal and Vice-principal, with Professors or Tutors, in the subjects above-mentioned. Arrangements will be made subsequently, but it is hoped at no distant period, for affording the means of instruction in other departments of knowledge, which, though of secondary importance when compared with the foregoing, are yet in a greater or less degree advantageous. These appointments will probably be made in the following order, according to the views entertained by the Council of their relative utility:

"1. Professors of the French and German languages and literature.

"2. Of Chemistry and Natural Philosophy.
"3. Of Natural History, including Zoology, Botany, Mineralogy, and Geology.
"4. Of Political Economy.
"5. Of the Hebrew, the Italian, the Spanish, and some other languages.

"The division of the students into senior and junior classes, which has been found very beneficial in other institutions, will be adopted in the Bristol College: thus enabling each pupil to commence in that part of the course of education, for which he is best fitted by his previous attainments.

"The junior classes will probably in a great measure consist of youths whose education has been hitherto incomplete; and their instruction will not differ materially, in its objects, from the plan pursued in the upper grades of academical schools. Due attention will be paid to blend mathematical learning with that which is strictly classical. In the former department, it is supposed, they will be sufficiently occupied with the first six books of Euclid, the higher branches of Arithmetic, and the introductory parts of Algebra. With respect to their classical studies, it is probable that the collections of Dalzel, or such authors as Herodian and Polynæus, in Greek, with selections from the best Latin writers, may answer every purpose. Proper care will at the same time be taken as to composition in prose and verse; while the fundamentals of grammar, prosody, and general information, will be laid or relaid as deeply as possible; so that when any youth ascends into the upper classes, he may proceed from the study of words to that of things, and endeavour to rear, upon a sound philological basis, his superstructure of knowledge, at once exact and comprehensive.

"For the senior classes the following, or some nearly similar scheme of instruction will be pursued. Their classical studies, for the first two years, may principally have relation to the ancient poets, orators, and historians, while a third may be devoted chiefly to the works of the philosophical writers. During the former period, the most instructive pieces of the Greek drama, both tragic and comic, may be perused, and illustrated by historical and critical disquisitions; as also wholly, or in part, the poems of Theocritus, Callimachus, and Pindar; the orations of Isocrates, Demosthenes, and Æschines; and the great works of Xenophon, Herodotus, and Thucydides. Portions of the most important Roman authors, such as Livy, Tacitus, and Cicero, with selections from the poets, will be taken up in their appropriate places.

"A series of lectures on classical criticism and composition may be delivered also, at this part of the course, founded on the Poetics and Rhetoric of Aristotle, and the works of Longinus and Quintilian. These may be read either during the second or third year, as circumstances may render it expedient, and they may be followed by a short course on logic.

"The studies which are to be pursued during the third year, will be arranged nearly on the following method. Some of the dialogues

of Plato, as particularly the Phædon, and Timæus, and the Ethics of Aristotle, with some of the speculative works of Cicero, may be gone through, not merely as class books, but as illustrating the ancient forms of philosophy. With the same view, and in order to develope the history of human opinions, lectures may be delivered to the students, for which the celebrated work of Brucker furnishes an outline, during the earlier periods, and the writings of Stewart, Reid, and Playfair, in the more recent times. The principles on which the metaphysical systems of Kant and Fichte are founded, may be briefly examined; but the works of Locke, and Dugald Stewart, must be diligently studied, as affording the firmest ground for the discipline of the intellectual powers, and as illustrating the present state of mental philosophy.

"The Greek Testament will be used as a class-book, both in the senior and junior classes. Paley's 'Evidences of Christianity' will also be read by the former, and will be made the subject of examinations similar to those which are usual in the colleges at Cambridge.

"The Mathematics will be taught in separate classes, parallel perhaps to those before mentioned, or otherwise, as may hereafter seem advisable. It is intended however to adopt, with no more alteration than can be avoided, the plan at present pursued in Trinity College, Cambridge. It is expected that the student will have been grounded in the elements of Geometry and Algebra while in the junior classes. He will then proceed to Plane Trigonometry, to the higher parts of Algebra, and having become acquainted with the Differential and Integral Calculus, to the theory of Curves, and successively to Statics and Dynamics, Conic Sections, and the three first sections of Newton's Principia. Thus far he may advance during the first and second years: in the third, he will be occupied with the principles of Hydrostatics and Optics, and with the remainder of the first book of the Principia, as well as with Spherical Trigonometry and Physical Astronomy.

"With respect to the English language and literature, the attention of the pupils will be directed to the origin, formation, and progress of their native tongue; its etymology and relation to the Teutonic dialects, whence it is derived; its analysis, idioms, figures of speech, and other peculiarities of structure. The lectures on our own literature will consist of a history of its various branches, from the earliest era downwards, with a review of the works of our greatest writers, both in poetry and prose, whether romantic, dramatic, epic, lyrical, or miscellaneous; their productions in divinity, history, biography, ethics, oratory, and other departments of art and science; the periodical literature of the country; and generally its present state, and future prospects, in the republic of letters. These will be conducted in such a manner as to render them interesting not less to the public at large than to the regular members of the College.

"Universal History has also been considered an indispensable acquirement, and the mode of teaching it may be on the following plan. With the junior classes, the Professor will simply hear them

read elementary authors, keep up their attention, by examining them closely from time to time; endeavour to awaken their interest in the subject before them, and prepare their minds for its ultimate study in connexion with Geography and Chronology, upon scientific principles. With regard to the senior classes, lectures may be delivered; succeeded by examinations on the matter of the last address. Although a minute knowledge of history cannot thus be communicated, its broad outline will be deeply impressed upon the understanding. Directions may be given for working out, or filling up the details, in private; and the pupil may be spared much fruitless time and labour, while he is simultaneously acquiring habits of reflection, sound notions of criticism, correct ideas of the nature of moral evidence, enlarged views of men and things, with a decided preference for matters of fact and solid reason, rather than romance and vain hypothesis. His thoughts will be made to assume a practical instead of a speculative bias. The lectures may proceed in courses of from ten or twelve to twenty each, embracing successively the general, military, political, ecclesiastical, literary, and domestic departments, both ancient and modern, with the subsidiary branches of Medals and Diplomatics. They will in turn treat upon the Jews and other Oriental nations; on Greece and Rome, through all their stages; widening the survey to comprehend the whole world, in its descent towards later times; and still more closely particularizing on those important features affecting our own age and country. Such topics moreover will be brought forward, as the origin and progress of society. the migrations of the human family, the power of cultivated intelligence, the course of civilization from the east to the west, and of influential conquest generally from the west to the east, their ruption of the barbarous nations, the hierarchical, monastic, and feudal systems, the history of arts, commerce, and inventions, the growth of opinions, the population and depopulation of the earth, navigation, manners, and customs, with the rise and fall of different empires, marking carefully the promulgation and developement of Christianity, its beneficial results in every clime and era, and the causes by which those results have been accelerated or retarded."

Theological instruction, in the principles of the Church of England, will also be afforded within the walls of the College; the Lectureship not to be a college appointment, but to be supported by those members of the Council and students who may wish to avail themselves of the advantages of such lectures; the course of instruction to be conducted according to the following outline:

"1. The evidence and doctrine of natural religion, as deduced by inference from the works of nature, from the phenomena of the human mind, and from the circumstances of mankind. The text-books of this part of the course may be the works of Derham and Paley on Natural Theology, and the Analogy of Bishop Butler.—2. The evidences of Christianity—taking as text-books the works of Paley, Chalmers, and Less on this subject.—3. A brief survey of biblical criticism, upon the basis of the lectures and translations of

Bishop Marsh, or at least the second volume of the 'Introduction to the critical Study of the Scriptures, by the Rev. Hartwell Horne.—4. Scriptural Archæology, with Sacred and Ecclesiastical History.—5. The doctrines of the Church of England.—6. The most important principles relative to Church discipline.

"General, particular, and especially terminal examinations, will take place, and be as frequent and public as may be deemed expedient; while suitable prizes will be offered, to stimulate the youthful aspirant, and foster a generous emulation.

"The College term will probably extend over ten months of the year, including short vacations at Christmas and Easter.

"Although the financial details are not sufficiently advanced to enable the Council to state exactly the expenses of instruction, yet it is right the public should be informed of their confident anticipation that the said course of education is not likely to cost more to the nominee of a proprietor than from £18 to £20 per annum.

"The remuneration of literary officers will be made to depend, either in whole or in part, upon the extent of their classes, so as to identify their several talents and interests with the fame, prosperity, and success of the College, over whose pupils they are called to preside."

Short Account of the Education of the Poor in Devon. (From a correspondent).—The education of the lower classes in the county of Devon has made rapid advances within a few years. A considerable number of schools have been established; and, in almost every parish, Sunday-schools are now to be met with, under the superintendence of the minister, as well as day-schools. In an agricultural district the great disadvantage is, that families are scattered about in remote situations at a distance from the villages where the schools are; many children are therefore unable to attend regularly, particularly during the winter season. In many of these schools only reading is taught, and in some districts there appears to be a prejudice against the poor being instructed in writing; this is, however, declining, and many more are now taught to write than formerly. A great impediment to the general education of the poor in Devonshire, is the apprentice system. The children are bound out as apprentices when nine years of age, and instances occur too frequently of neglect on the part of their masters, in consequence of which the little that is learnt previous to their being bound out is soon forgotten. The greater part of the schools in the Devonshire villages are dames' schools, the salary being generally insufficient to pay a man for devoting his time exclusively to instruction.

In the Report of the present year of the Society at Exeter for Promoting Christian Knowledge, a list is given of schools in the diocese, which are supplied with books from the society; many of these are Sunday-schools, and the number of children taught is,

In the Archdeaconry of Exeter . .	8,505
Archdeaconry of Totness . .	6,724

Archdeaconry of Barnstaple	.	3,131
Archdeaconry of Cornwall .	.	4,883
Total .	.	23,243

These schools must be considered as exclusively connected with the Church of England; the old-established charity-schools, which are numerous, are not included. The present Bishop of Exeter (Dr. Carey), a few years ago, recommended to his clergy the establishment of parochial lending libraries, on the plan suggested by the Society for Diffusing Christian Knowledge. It appears, from the Report to which I have already alluded, that, in the archdeaconry of Exeter, there are 21 libraries of this description; in Totness, 15; in Barnstaple, 8; and in Cornwall, 9. The books in these libraries must be selected from the catalogue of the society, and they are afforded at a cheap rate. The following is the catalogue of the library of a small parish near Exeter. I believe the books are lent to the poorer classes gratuitously.

1. Gostrell's Institutes.
2. Mann on the Four Gospels.
3. Trimmer's Scripture Catechism, Part I.
4. Ditto, Part II.
5. Horne's Commentary on the Psalms.
6. Burkitt's Help and Guide.
7. Rotheram's Essay on Faith.
8. Nelson's Companion.
9. . . . . . . Practice of true Devotion.
10. Wilson's Sacra Privata.
11. Duke's Lectures.
12. Secker on the Catechism.
13. Wilson's Principles and Duties.
14. Wall on Infant Baptism.
15. Nelson's Christian Sacrifice.
16. Wilson on the Lord's Supper.
17. Claims of the Established Church.
18. Whole Duty of Man.
19. Jones on the Trinity.
20. Wilson's Christian Knowledge and Practice.
21. Wilson's Sermons, vol. 1.
22. Wilson's Sermons, vol. 2.
23. . . . . Maxims of Piety.
24. Crossman's Introduction.
25. Mant on Regeneration and Conversion.
26. Walton's Lives.
27. Harte's Lectures on the Gospel.
28. Burnett's History of the Reformation, vol. 1.
29. Ditto, vol. 2.
30. History of the Wars of the Jews, vol. 1.
31. Ditto, vol. 2.
32. History of England, vol. 1.
33. Ditto, vol. 2.
34. Anson's Voyages.
35. Bingley's celebrated Voyagers.
36. Ditto ditto Travellers.
37. Life of Columbus.
38. Life of Captain Cook.
39. Sturm's Reflections.
40. Robinson Crusoe.
41. Life of the Duke of Wellington.
42. Beren's Christmas Stories.
43. History of Prince Lee Boo.

This list may be taken as a fair sample of what a parochial library contains. More than half the volumes are of a religious character, and the remainder mostly voyages and travels.

ROYAL GEOGRAPHICAL SOCIETY.

The Royal Geographical Society of London, which was instituted in 1830, at present consists of about four hundred members. The objects of the Society are :

1. To collect, register, and digest, and to print for the use of the members, and the public at large, in a cheap form and at certain intervals, such new, interesting, and useful facts and discoveries as the society may have in its possession, and may from time to time acquire.

2. To accumulate gradually a library of the best books on geography—a selection of the best voyages and travels—a complete collection of maps and charts, from the earliest period of rude geographical delineations to the most improved of the present time; as well as all such documents and materials as may convey the best information to persons intending to visit foreign countries; it being of the greatest utility to a traveller to be aware, previously to his setting out, of what has been already done, and what is still wanting, in the countries he may intend to visit.

3. To procure specimens of such instruments as experience has shewn to be most useful, and best adapted to the compendious stock of a traveller, by consulting which he may make himself familiar with their use.

4. To prepare brief instructions for such as are setting out on their travels; pointing out the parts most desirable to be visited; the best and most practicable means of proceeding thither; the researches most essential to make; phenomena to be observed; the subjects of natural history most desirable to be procured; and to obtain all such information as may tend to the extension of our geographical knowledge. And it is hoped that the society may ultimately be enabled, from its funds, to render pecuniary assistance to such travellers as may require it, in order to facilitate the attainment of some particular object of research.

5. To correspond with similar societies that may be established in different parts of the world; with foreign individuals engaged in geographical pursuits, and with the most intelligent British residents in the various remote settlements of the empire.

6. To open a communication with all those philosophical and literary societies with which geography is connected; for as all are fellow-labourers in the different departments of the same vineyard, their united efforts cannot fail mutually to assist each other.

The provisional committee, in their closing address, particularly call the attention of the officers of the army, navy, &c., and of travellers, to the great importance and utility of the institution, and calculate on their support, not only as members, but as communicators of facts and information, of which the society will be the most fitting depository, and by whom they may be most beneficially promulgated. They also state, as among the objects to which their attention will be directed:

1. The composition of maps illustrative of particular branches of

geographical knowledge, more especially those relating to orology, hydrology, and geology.

2. The establishment of new divisions of the earth's surface, formed upon philosophical principles, and adapted to different departments of science; more especially as regards those divisions which are founded on physical and geological characters, on climate, and on distinctions of the human race, or of language.

3. A more uniform and systematic orthography than has hitherto been observed, in regard to the names of cities and other objects; and a more precise and copious vocabulary, than we at present possess of such objects.

4. The preparation and improvement of road-books for different countries, of gazetteers, and of geographical and statistical tables, and all such matters as are of general utility.

The ordinary meetings of the Society are held on the 1st and 3d Mondays in each month, at the rooms of the Horticultural Society. Several valuable communications have been read at the meetings which have already taken place.

British Museum.—It is somewhat singular that the Parliamentary returns shew, that the number of visitors to the British Museum, almost the only Institution connected with Science and Art to which the public have access without payment, should have greatly fallen off during the last few years. From Christmas 1824, to Christmas 1825, the number of persons admitted to view the Collections of Antiquities and subjects of Natural History was 127,643; from 1825 to 1826, 123,800; from 1826 to 1827, 79,131; from 1827 to 1828, 81,228; from 1828 to 1829, 68,101. The days of public admission are the Mondays, Wednesdays, and Fridays in every week, between the hours of ten and two. The Christmas, Easter, and Whitsun weeks are, however, excepted; and thus it happens, that the vacations of the officers of the Museum take place at those seasons, when the public are most disposed to relaxation. The people of London are deprived, by this arrangement, of an opportunity of acquiring information, and improving their taste, at the period when the customs of the metropolis afford them a little leisure from their ordinary employments. The number of persons frequenting the reading-room, on the other hand, has increased. That number in 1827, was 1556; in 1828, 1714; in 1829, 1758. The extent of the library, now that the King's Collection is open (although far from completeness), and the accommodations afforded to readers, would lead us to expect that the numbers would go on increasing.

At Preston, Lancashire, the annual report of the Institution for the Diffusion of Knowledge was read at a general meeting in October last. According to this report, the members appear to be fully sensible of the advantages afforded them by the institution, and the funds are stated to be in a satisfactory state. The library contains 1,700 volumes, of which about 200, many of them of a valuable description, have been added during the last year.

One of those highly beneficial institutions, a village library, has been recently established at Ashford, Derbyshire. It is to be supported by subscription, and is intended more particularly for the use of the junior members of families; it already possesses many excellent works.

On Thursday, Oct. 1, a very numerous and highly respectable meeting was held at the Guildhall, Taunton, for the purpose of forming a Mechanics Institute in that town. The two members of parliament for the town sent 20*l.* each towards the necessary expenses, and directors were elected, and regulations agreed upon for its future management.

Richard Arkwright, Esq. has erected a new free-school at Cromford, Derbyshire, at his sole expense, for the children of that place.

Proposals have been issued for the establishment of a Philosophical Institution, and a Museum for the County of Berks, at Reading.

The cases and cabinets for the museum of the Halifax Literary and Philosophical Society are now fitting up. When completed, and the different specimens arranged, it will be one of the most perfect establishments of the kind, and cannot fail to prove both useful and attractive.

Prior Park, near Bath, a noble mansion, surrounded with park grounds of nearly 300 acres, has been purchased by Dr. Baynes, the Roman Catholic Bishop of the Bath district, and is now being converted into a Roman Catholic College. The chapel is fitting up, and a library is forming. An old tower on the summit of the grounds is to be occupied as an observatory, and adapted to scientific purposes. The new buildings, and the requisite alterations in the old, it is expected, will be completed, and the business of education will be commenced, early in the ensuing year.

A society, supported by subscription, has been formed for the benevolent purpose of endeavouring to provide a remedy against the growth and manifest ill consequences of juvenile vagrancy in and near the metropolis, where there are, as is stated, 15,000 boys who have no visible means of subsistence. The intention of the society is to provide ground, somewhere near the metropolis, where such boys may be employed, taught the elements of agriculture or horticulture, and by being subjected to moral direction and restraint, and their labour rendered productive and available to their own support, they may be rescued from the certainty of becoming miserable themselves, and burthens and nuisances to society.

SCOTLAND.

The Circus Place School, Edinburgh, opened on Wednesday, Sept. 17. It is conducted on the principles of the intellectual system, as exemplified by Mr. Wood, and originated from a desire on the part of several individuals to have a school on that system for the higher classes of society. In the earlier stages of their progress, boys and girls are taught together. The school is open every Tuesday and Friday to visitors, and is liable to the inspection of the direc-

'tors every day. A library of considerable extent, and a museum, are also provided for the use of the children.—*North Briton, Sept.* 11.

Mr. Donaldson, of Broughton-hall, a gentleman long connected with the Edinburgh Advertiser, whose death took place in October last, has left property to the amount, it is stated, of 220,000*l.*, to be employed in founding and endowing a hospital near Edinburgh for the support and education of orphan and destitute children.

At Kinghorn, Fife, a new school-house has been erected, which was opened on the 17th September. It comprehends an infant school-room, a common school-room, a female school-room, and a library and museum. A gymnasium for the recreation of the children, and a botanic garden for their amusement and instruction, in the intervals of leisure from study, are also being formed.

Note.—In these Miscellaneous Notices it is our intention to give brief statements of the annual progress of all societies and institutions which are formed for the advancement of education; and we therefore request that the Reports of such societies and institutions may be forwarded to us. It is obvious that, if we were to attempt any abstract, in the present number, of the Reports of the past year, our information would be wanting both in variety and completeness.

THE

QUARTERLY JOURNAL OF EDUCATION.

REASONS FOR ESTABLISHING A PUBLIC SYSTEM OF ELEMENTARY INSTRUCTION IN ENGLAND.

In our last number we gave some account of the institutions that have been established in Scotland, the United States, Prussia, Hesse, Bavaria, &c., for affording elementary instruction to the lower classes; and endeavoured, at the same time, briefly to point out the advantages that had resulted from the consequent diffusion of education in these countries. But we take leave to say, that elementary instruction is no where so indispensable as in England and Ireland; and yet they are now among the few civilized countries in which no public provision has been made for its supply. Not only are the means of education very deficient amongst us, but the quality of that which is afforded by the benevolent efforts of individuals is, and must unavoidably continue to be, very defective. This is much to be lamented: the state of society in England is, in many respects, peculiar, or rather, we should say, without a parallel either in ancient or modern times. Owing to the extraordinary extension of manufactures and commerce amongst us, and to the mode in which landed property is occupied, a very large proportion of our people is dependent for support on the wages of labour, and is consequently exposed to all the vicissitudes that necessarily result from so precarious a condition. Changes of policy or fashion, abroad or at home, may, at any time, deprive thousands upon thousands of our labouring population of their accustomed means of subsistence; while any serious deficiency in the harvest is sure to inflict the severest privations on the whole class. The situation of the labourers of all other countries is widely different; manufactures and commerce have made comparatively little progress amongst them; the greater number of their inhabitants are attached to the soil and depend upon it for support, so that the proportion of those liable to be thrown out of employment is comparatively small.

This peculiar state of things ought to excite the deep and earnest attention of those interested in the welfare of the country. It would be easy to show that it has many advantages, and in particular, that it is highly favourable to the progress of the arts, and gives the fullest scope to invention: but, on the other hand, it is pregnant with no inconsiderable amount of danger. The labourers are now become, from their number and their union, in the large manufacturing towns, one of the most important powers in the state, and exercise a very great influence over the deliberations and acts of government. No one who has any, even the slightest, practical acquaintance with the workings of our political system can doubt the truth of this statement; and as little can it be doubted that this power is becoming every day more formidable. Need we say more to prove that it is of the utmost importance, not only as respects the stability of our institutions, and the security of the middle and upper classes, but as respects all the best interests of the labourers themselves, that every possible effort should be made to diffuse *sound instruction.* Education may be dispensed with in other countries, but it cannot be dispensed with in England. It is not to be denied that a manufacturing population is peculiarly inflammable, and apt to be misled; and the only way to secure the labourers, as well as the other classes, from the ruinous consequences that are sure to arise from their supporting any unsound or impracticable principle, is to instruct them in their real interests.

The poor are neither fools nor knaves; they investigate all plain practical questions with quite as much sagacity and penetration as those that are rich: and were they made aware of the circumstances which really determine their condition, they would, speaking generally, be disinclined to do anything that might tend to render it worse. To suppose that it should be otherwise would be to suppose what is contradictory and absurd; it would be to suppose that they are insensible to, and careless of, their own interest! Is it not, then, the duty of all governments, but especially of the government of a country so peculiarly situated as England, to make provision for the proper education of the poor? If any one ask what has elevated the British empire to the high pitch of wealth and power she has attained, the answer is obvious, and may be made in two words—*freedom* and *security*: Freedom to engage in any sort of undertaking, and to prosecute it in one's own way, combined with the conviction, or sense of security, felt by every one, that he will be allowed to employ or dispose of his

property without molestation. Without security there can be neither riches nor civilization; and, however far a country may have advanced, if she do not, at all hazards, maintain the security of property, she will speedily relapse into primeval barbarism and ignorance. But what is, of all others, the most effectual means of providing for this security? Will it be best promoted by multiplying penal statutes? by maintaining large bodies of military and police? or by making one half the population responsible for the other? We confidently answer, No: not that we mean to say or to insinuate that punishments, troops, police, &c. are not indispensable; but they are not enough. The foundations of real security are beyond and above the law. Outrage and attack may and ought to be put down by prompt and adequate punishment; but no severity of punishment, provided the circumstances in which the outrages originated be not changed, will hinder them from breaking out anew. And hence, if we would have perfect security, as perfect at least as can be obtained, we must show the people that it is for their advantage that it should be preserved inviolate; we must prove to them—and luckily the proof is very easy—that whatever has any tendency to shake the security of property, is even more ruinous to those who depend upon wages for subsistence than to their employers. Make a labourer aware that the introduction of machinery is highly beneficial to his order—that, in fact, it has more than quintupled the demand for labour, and added prodigiously to the comforts and conveniences of every class—and, though he were the veriest clodpole that ever existed, machinery will cease to be the object of his attack. Men often traduce and calumniate their benefactors; but they invariably do so in ignorance, and because they believe them to be their enemies; undeceive them upon this point, and their ingratitude is immediately changed into gratitude and esteem;—so it is with attacks on property. The Luddites and the peasantry believe that machinery is hostile to them, that it deprives them of employment, and drives them to the workhouse, and they, therefore, destroy it; nor can anything, under such circumstances, be more natural. The law, indeed, says that machinery shall be protected, and that those who attempt its demolition shall be punished; and no reasonable man can dispute the expediency of such a regulation. But it is obvious, as well from the nature of the thing as from what has taken place amongst us, that the threatenings of the law are not sufficient for the prevention of outrage; and seeing, as every one does, that such is the case, is it not incumbent upon us to try what may be done by other means?

It is all very proper to tell the labourers that they shall be sent to the gibbet or the hulks if they commit certain acts; but would it not give weight to such tremendous denunciations, were means at the same time adopted for proving, to the conviction of the labourers, that the law is not hostile to them; that the acts it denounces are as destructive of their interests as of those of others; and that the security of property and the employment and continued improvement of machinery are, in fact, indispensable to the existence of the great bulk of the labouring class? Satisfy the labourers that such is the case, and there will be no more occasion for special commissions. Not one in ten thousand can honestly exclaim *video meliora proboque, deteriora sequor!* We are inimical to whatever we believe to be injurious to ourselves, and though the laws of Draco were enacted over again, we should take the first opportunity of displaying our enmity by some overt act. The lash, and nothing else, is powerful enough to compel the slave to sluggish exertion; but the desire to promote his own advantage is sufficient to make the freeman laborious and inventive. In like manner, penal statutes may make those who are ignorant, and who are probably misled by designing knaves, unwillingly respect, for a while, the right of property; whereas an instructed population willingly respect it for their own sakes, and because they know it is essential to their welfare.

We have referred to the case of machinery, because of the open and multiplied attacks that have been made upon it; but they are very ignorant indeed of what is going on around them who suppose that hostility to machinery is the only or the most dangerous delusion that is growing up amongst the labouring classes. And let no one imagine that so mighty a power can be dragooned or coerced into obedience—No! if we would make sure of the permanent tranquillity, and by consequence of the permanent prosperity of the empire, we must address ourselves to the reason and not to the fears of the multitude; we must show them wherein their real interest lies; and to do this we must supply them with that of which they are now entirely destitute—a really good and useful system of instruction. We must give to the poor the means of distinguishing between their apparent and their real interests, and of detecting the pernicious sophistry of those who make it their business to delude them. Hitherto it would seem as if those who have promoted the education of the poor imagined they had done quite enough when they taught them to read and write. But though this much be indispensable, still it is certain that the education which stops

at this point is most incomplete, and may, indeed, be perverted to the very worst purposes. A knowledge of the arts of reading, writing, and arithmetic may, and frequently does, exist along with the most profound ignorance of all those things as to which it is most essential that the poor should be informed; it opens an inlet to truth, but so does it to error and sophistry; and it is the bounden duty of the rulers of every country, at least if they would make sure of their own safety, and provide for the welfare of their people, to take especial care, not only that the avenues to knowledge shall be opened to the poor, but that they shall be instructed in the mode of distinguishing what is true from what is false—at least in so far as their leading interests and those of society are involved. For this reason we look upon it as indispensable, that besides being instructed in the arts of reading and writing, provision should be made for instructing the labouring classes in those circumstances which have the greatest influence over their condition. They should, first of all, be made acquainted with the motives which have induced every society emerging from barbarism to establish the right of property; and the advantages resulting from its establishment, and the necessity of maintaining it inviolate, should be clearly set forth. The sophisms of those who contend that property is instituted only for the advantage of the rich should be exposed; for though it cannot be shown that the institution of private property has made all men rich, it may very easily be shown that it has done ten times more than all other institutions put together to produce that effect; and that were it subverted, the rich man would very soon become poor, while he that is at present poor would become still poorer. The circumstances that give rise to those gradations of rank and fortune that actually exist ought also to be explained: it may be shown that they are as natural to society as differences of sex, of strength, or of colour; and that though such a revolution were to take place as should overthrow all that is exalted, and establish the Spencean system on the ruins of the present order of things, the equality thus violently and unjustly brought about could not be maintained for a week; and that infinite misery would be inflicted on society without obtaining any countervailing good whatever.

The next object should be to make the poor fully acquainted with the various benefits resulting from the employment of machinery in industrious undertakings; and they should be shown, that though such employment may sometimes appear to lessen the demand for labour, its real

effect is *always to increase it;* and that their interests are invariably promoted by the adoption of every device that can in any way add to the powers of production.

But it is, above all, necessary that the labourers, and indeed that every class, should be acquainted with the circumstances that determine the rate of wages, or with the plain and elementary principles respecting population and the demand for labour. We certainly have no wish to extenuate the faults of the rulers of any country; but to ascribe, as so many do, all the poverty and distress abroad in the world to the agency of government, argues either the most deplorable ignorance or the most barefaced knavery. Every country has a right to be governed in the best possible manner, and we are not apologizing for erroneous political measures, which are often in the last degree injurious; still, however, there are copious sources of poverty with which governments have very little, if anything, to do; and though a country were ruled by absolute wisdom, it were vain to expect that the poor should ever entirely 'cease out of the land.' Wherever the number of labourers, as compared with the demand for their services, is redundant, wages will be low, whatever be, in other respects, the situation of such country; and wherever labour is not redundant as compared with the demand, wages will be good. The important and undoubted truth ought, therefore, to be early impressed upon the poor, that they are themselves, in a great measure, the arbiters of their own fortune; that the means of subsistence and of comfort are in their own hands; and that what others can do for them is but as the small dust of the balance compared with what they can do for themselves. Frugality and forethought are the virtues which they should be taught to cultivate; and it is principally by their cultivation that man is distinguished from the lower animals. The former teaches to husband our present means, while the latter warns us not to expose ourselves to the risk of lengthened privations hereafter for the sake of immediate gratifications. Notwithstanding no effort whatever has at any time been made to open the eyes of the poor as to what is so essential to their welfare, their natural sagacity has led them to act in the way that is most beneficial for themselves. The difficulty of providing for the wants of a family being far greater here than in America, marriages amongst us are generally deferred to a later period, and many find it expedient to lead a life of celibacy. Now if the natural and untutored sagacity of the people has made them so far control their passions, can it be doubted that this control would have been far more effective had all classes been made

fully aware of the importance of moral restraint? And to do this would not certainly be a very difficult task; it would not require any very great cogency of reasoning to convince even the most obtuse that it is their duty to provide for the support and instruction of the beings they bring into the world; and that to discharge this duty they should decline marrying until they have made some little provision against contingencies, or obtained a reasonable prospect of being able to support themselves and their families. We do not pretend that this, or indeed that any instruction would prevent all improvident unions; but it is not possible to doubt that it would have a very powerful and salutary influence.

Such are the leading subjects with respect to which it is of the last importance that the poor should be thoroughly instructed. If we show them clearly wherein their real interest consists, if education be made to embrace objects of undoubted utility, and if they be explained with that clearness, and enforced with that earnestness, which their superior importance requires, we shall have done the most that can be done to ensure the tranquillity of the country, and the prosperity of the higher as well as of the lower classes.

It has been well observed by the Bishop of Chester, in his admirable work on the 'Records of the Creation,' that, 'of all obstacles to improvement, ignorance is the most formidable, because the only true secret of assisting the poor is to make them agents in bettering their own condition, and to supply them, not with a temporary stimulus, but with a permanent energy. As fast as the standard of intelligence is raised, the poor become more and more able to co-operate in any plan proposed for their advantage, and more likely to listen to any reasonable suggestion, and more able to understand, and therefore more willing to pursue it. Hence it follows, that when gross ignorance is once removed, and right principles are introduced, a great advantage has been already gained against squalid poverty. Many avenues to an improved condition are opened to one whose faculties are enlarged and exercised: he sees his own interest more clearly, he pursues it more steadily, and he does not study immediate gratification at the expense of bitter and late repentance, or mortgage the labour of his future life without an adequate return. Indigence, therefore, will rarely be found in company with good education.'—(4th edit., vol. ii., p. 338.)

Perhaps it will be said that the subjects previously alluded to are of such a nature that they could not be made level to

the comprehension of the young, or advantageously taught in schools; but such is not in any respect the case. The subjects in question are not half so difficult to understand as many of those branches of mathematics that are now commonly taught in the Scotch parish schools. The books for the use of scholars ought to be written in a clear, popular style, logical without the logical forms, with as little admixture as possible of scientific terms, and illustrated and rendered interesting by practical examples. At present, unfortunately, such books can hardly be said to exist; and their compilation requires talents of a very peculiar order. Surely, however, there is no labour more important, or more worthy of a really benevolent mind, than the simplification and diffusion amongst the multitude of those great truths, the knowledge of which must necessarily raise them in the scale of being, and render them better and happier The composition of such works, though hitherto left to very inferior hands, is an act of justice which the possessors of wealth, and the votaries of science and philosophy, owe to those who relieve them from the necessity of bodily labour, and enable them to enjoy their fortunes, or to prosecute their investigations. 'Books,' said Milton, 'are not dead things, but do contain a potency of life in them to be as active as that soul was whose progeny they are. They preserve, as in a vial, the purest efficacy and extraction of that living intellect which bred them. They are as vigorously productive as the fabulous dragon's teeth.' And we may add, that according to the quality of those put into the hands of the young, we may pretty confidently predict whether they will prove idle and profligate, or sober and industrious.

Since we have touched upon the subject of books, we may remark by the way, that, with the exception of the schools and schoolmasters, there is nothing that calls more loudly for improvement than the school-books of Great Britain It is not possible to suppose that anything can be, generally speaking, more utterly worthless. Instead of manuals giving a clear and popular outline of the useful arts or sciences, the most popular of them consist, for the most part, of collections of scraps from writers in criticism and poetry. The great object at public examinations is not to ascertain the progress made in what is really useful, but to make exhibitions in the art of spouting! The children of the poor are not made to read anything about the institution of property, the advantages of machinery, the rate of wages, or the practices of the arts in which they are to be engaged, but they are trained to mouth the soliloquies of Addison, to spout like

Dick the Apprentice, and moralize with Falstaff and Byron!—Even when, as in geography, an attempt is made to convey some useful information, nothing can be less successful. Our geographical works, from the three quartos of Pinkerton down to the puny duodecimos of yesterday, are, with very few exceptions, such as would be discreditable to the monks of Salamanca. They consist, for the most part, of long historical details, compiled in the most slovenly manner, and altogether foreign from the subject of the science, or of mere catalogues of names, strung together without principle or science, and not half so instructive as the almanacs of last century, or last year's Directory. The Kildare Street Society in Dublin has made some meritorious efforts to produce cheap and instructive books for common schools; but these books are still very inferior to what would be produced under the encouragement of a general system of elementary instruction.

We, therefore, are clearly of opinion that it is imperative upon government to take measures for having the public provided with really useful instruction. We look upon the education of the poor as absolutely essential to the safety of the country. Ignorance in the mass of the people, and the existence of really free institutions are altogether incompatible;—such discordant elements have invariably produced either anarchy or despotism—either the tyranny of the rabble, or of some individual who has made their ignorance the instrument of his own elevation. The poor have immense influence; and it is not more for their own sakes than for those of others, that they should be made aware of the circumstances which fix their condition, and of the fact that their own welfare is identified with the maintenance of security and good order. Those who are ignorant are not the less ready to act, the less dogmatical in their opinions, or the less violent in their resolutions; and hence the vital importance of sound instruction. An uneducated, or, which is far worse, an ill-educated multitude, possess no self-regulating principle, and are necessarily the willing instruments of their own prejudices or of crafty demagogues. Mobs have uniformly been violent and outrageous according to the strength of the delusions by which they have been actuated, or, in other words, to the degree of their ignorance. What other cause can be assigned for the massacres and persecutions perpetrated under pretence of advancing the interests of religion, which desolated Europe for so many ages, except that the ignorance of the people rendered them a prey to the grossest delusions of superstition and fanaticism? Could those able and upright statesmen, the Grand Pensionary

De Witt and his unhappy brother, have met with such cruel treatment at the hands of an enlightened populace, capable of appreciating the signal services they had rendered their ungrateful country? Could the disgraceful riots of 1780, and the burning of Lord Mansfield's library, have occurred, had the lower classes in this great city been only tolerably educated? Could the detestable enormities and atrocities of the French revolution of 1789 have been perpetrated, otherwise than by the agency of a mob, whose ignorance fitted them for the commission of every crime, by rendering them the willing and unsuspecting dupes of the vilest ruffians? What but ignorance gives power to the agitators of Ireland? And what but ignorance draws recruits to the standards of 'Swing,' beats to pieces our thrashing machines, and fires our barns and houses?

It would be easy to quote innumerable other examples of the disastrous influence of ignorance on the public tranquillity and conduct of the people; but what has been already stated is more than sufficient to show that, instead of its being true, as some shallow sophists have contended, that ignorance is the surest pledge of the submission of the lower orders to established authority—it is by far the most prolific source of confusion and disorder. 'Contemplate,' said the late Mr. Whitbread, in a speech that will always do honour to his memory, 'ignorance in the hands of craft, and observe what a desperate weapon it becomes! But, how impotent is craft before an instructed and enlightened people! View the injustice and cruelty of ignorance; the violence and horrors of an infuriated mob, destroying its victims without selection or remorse—itself ultimately the victim of its own infatuation and guilt!'

The aim and object of all public institutions either is or ought to be, to render mankind virtuous and happy. But the means most proper to produce these desirable results are learned only by experience and observation; and the grand purpose of schools and other seminaries for public instruction should be, so to instruct the pupils, so to direct the nascent passions, and so to mould the infant reason, as may best promote the welfare of individuals, and consequently of the state to which they belong. 'Albeit,' says Sir Henry Wotton, 'good laws have always been reputed the nerves or ligaments of humane society, yet are they no way comparable in their effects to the rules of good nurture; for it is in civil as it is in natural plantations, where young tender trees (though subject to the injuries of air, and the danger even of their own flexibility) would yet little want any under prop-

pings and shorings, if at first they were well fastened in the root.' (Reliquiæ Wottonianæ, p. 78.)

Those who are anxious that the conduct of the public should, on all occasions, be dictated by sound good sense—that their judgments should be guided by principles, and not by the inflammatory harangues of those who are always ready to pander to the prejudices of their audiences—must, if they be consistent, be also anxious that they should be universally instructed. A tyrannical government, or one that has for its object to advance the interests of a few by trampling on the rights and privileges of the great majority of its subjects, must necessarily hate intelligence. A government of this sort is bottomed on force or fraud, or both; and it must consequently dislike everything that would tend, as the diffusion of knowledge would most certainly do, to weaken the one and expose the other. But a government, animated by a spirit of patriotism, and honestly endeavouring to promote the welfare of all ranks and orders of its subjects, has nothing to fear from their intelligence, but a vast deal from their ignorance. Far from being adverse to the universal diffusion of education, to free discussion, to the most scrutinizing inquiry, such a government can hardly fail to be aware that these are her best securities. Her measures must very often be opposed to those narrow and illiberal prejudices which uniformly characterise an uneducated populace; and could only, indeed, be safely proposed to a people that could take a comprehensive and enlightened view of their real interests.

It is truly observed by Dr. Smith, that an instructed and intelligent people are always more decent and orderly than an ignorant and stupid one. 'They feel themselves,' says he, 'each individually more respectable, and more likely to obtain the respect of their lawful superiors, and they are, therefore, more disposed to respect those superiors. They are more disposed to examine, and more capable of seeing through, the interested complaints of faction and sedition; and they are, upon that account, less apt to be misled into any wanton or unnecessary opposition to the measures of government. In free countries, where the safety of government depends very much upon the favourable judgment which the people may form of its conduct, it must surely be of the highest importance that they should not be disposed to judge rashly or capriciously concerning it.'—(Wealth of Nations, vol. III., p. 305.)

But then we shall be told that the supply of education, like that of everything else, ought to be regulated by the demand—that, if schools be really useful, they will be established

without any assistance from government, and that, to interfere in the matter, would be against all principle. This is the cant of mere pretenders to science; and it is about the least tolerable of all cants. The fact is, there are no absolute principles with respect to this or any other subject of politics. The only question that can ever arise, is, will the proposed interference of government be productive, all things considered, of good or evil? If the former, government is bound to interfere; and, if the latter, it is bound not to interfere. Now, with respect to the particular case before us, there cannot be even the shadow of a doubt that, were government to interfere so far as to cause a public school to be established in every parish in England, where the fees should be moderate, and where really useful instruction should be communicated to the scholars, its interference would be in the highest degree beneficial. England has unfortunately been left, for the last thousand years, to supply herself with schools, according to the effectual demand for them; and the astounding exhibition of ignorance and stupidity at the late trials for machine-breaking and rioting, shows how she has been supplied! Let us, therefore, hear no more of this miserable twaddle about principle. Had the peasantry of Scotland, the United States, Prussia, Baden, Hesse, Bavaria, &c., been left to provide themselves with schools, would they have made the prodigious advances in intelligence and civilization that they have actually done? If so, why have not the peasantry of France, Spain, and Ireland, made the same advances?

But, as already observed, if for nothing else, government must, for its own sake, set seriously about furnishing the means of sound instruction to every one; for otherwise it cannot be secure for a moment against the blind and dangerous impulses by which an uneducated multitude is so apt to be actuated. To render the frame of our policy secure, and at the same time to make provision for safely amending its imperfections, the people must be instructed; they must be taught that their interests are identified with the maintenance of tranquillity, and the practice of frugality and forethought.

We shall resume this subject in an early number; and shall then show, that, deficient and bad as the education of the lower classes most certainly is, it is still superior, relatively to their condition, to that of the higher classes—to those from among whom our senators, judges, and magistrates are chosen.

EDUCATION IN SPAIN.

Being about to present our readers with an account of education in Spain, we feel bound to apologise for the necessity of beginning by a more retrospective view than would be allowable in a similar sketch of any other system of public instruction. The present state of Spanish education would excite no interest, without some knowledge of the protracted struggle kept up in that unhappy country by the contradictory desire of its authorities to maintain a national reputation for knowledge, and to stunt the growth of that knowledge to the shape and dimensions of their plan of Church and State.

It is, indeed, a merciful provision for the gradual progress of the human mind, that very few among the numerous and powerful opponents of that progress have been fully aware of the only measure which can accomplish their purpose, or have had the hardihood necessary to apply it successfully. Not unlike religious persecution (with which the desire to confine the mind of man within artificial limits is inseparably connected), the subjection of a whole people to a certain mental standard demands an unfeelingness so stern, so remorseless, so perfectly indifferent to national fame, that it seems perfectly incompatible with the European character. No Christian government has approached so nearly as the Spanish to the temper required for this diabolical task. But whilst bigotry steeled it against every impression of mercy in regard to religious dissenters, pride made it blush at the idea of national ignorance; ambition turned its thoughts to the means of rivalling other countries; and growing poverty forced it into communication with strangers. Now, he that would derive undisturbed sway from the ignorance of a nation, should beware of tampering with knowledge. Like Mahomet, he should close every avenue to the light of reason, and bring up his people in the most unhesitating belief that *to think* is degrading, hateful. impious. Heaven, however, though it allows Spain to linger, age after age, in the twilight of mental improvement, seems to have decreed that it shall not sink into the repose of utter darkness. The geographical position of the Peninsula; the commercial intercourse on which its prosperity depends; the near alliance of Spanish with Latin, Italian, and French; the pride of the Castillian kings, who inherit the claim of figuring in the first ranks of the European community,—are openings to knowledge from abroad which no human power can close.

But nothing is so curious as the instrumentality of the Spanish clergy in preserving the seeds of knowledge among a people whose mental improvement they have most lamentably thwarted. It is a well-known fact, that the noblest establishments for the promotion of learning in Spain have originated in the liberality of ecclesiastics. As soon as the arms of the Christians had driven the Moors beyond the frontiers of Castille, early in the thirteenth century, Don Rodrigo, Archbishop of Santiago, author of a Spanish chronicle, induced Alfonso VIII. to establish the University of Palencia, which, a few years after, was transferred to Salamanca by St. Ferdinand The ignorance of the Spaniards who lived out of the dominions of the Arabs must have been deplorable at the time when this first effort in favour of education was made. From a passage of Don Enrique de Villena, who flourished at the end of the fourteenth century, it appears that the Castillians had lost all knowledge of the alphabet: the restoration of this knowledge (according to the same writer) was effected by masters from England. The passage at the bottom of the page, which we copy from Mayans, is deficient in dates and other particulars; but the marriage of Alfonso VIII. with Eleonor, daughter of our Henry II., seems both to explain why Englishmen were the appointed teachers, and to connect this fact with the period of the foundation of the first Spanish university The latter means of instruction must have been intended for the secular clergy; the more elementary teachers for the laity*.

It does not appear that public education made any progress in Spain, or that any new establishments for public teaching were instituted, till 1420. About that year a college was founded under remarkable circumstances. A state of incessant warfare, either against the Mahometans, or among the Spaniards themselves, could not allow the leisure and secu-

* 'Despues recogidos los Christianos en il Monte Sacro en Asturias, é perecieron los saberes entre ellos y aun el escribir y leer por diuturnidad de tiempo. Desque fueron conquistando sintieron la mengua de la perdida letra, é embiaron a la Isla de Inglaterra por maestros que tuviessen escuela de escribir, é leer, é gramática; e mostraronles un tal alfabeto. Llamaronla *Letra Anglicana*, é decian a la H *Ague* (read Ach). Pero los de este reyno no podian pronunciar sino Ache.' —*Villena* ap. *Mayans, Origenes de la Lengua Castellana*, vol. ii. p. 331.—'When the Christians had confined themselves to the *Monte Sacro* in Asturias, all kinds of knowledge, and even that of reading and writing, were lost among them for a great length of time. But as they extended their conquests, they felt the want of the lost alphabet, and sent to the Island of England for masters, who should open schools of reading, writing, and grammar. These men taught the desired alphabet: it was called the *Anglican Letters*, and they (the masters) called the H ach; but the natives of this kingdom could not pronounce it otherwise than *Achè*.'

rity which public education requires: hence the curious fact of a Spanish college founded abroad. The very troubles and feuds which drove the Archbishop of Toledo, afterwards Cardinal Albornoz, out of his native country, induced him to found at Bologna the still existing college of *San Clemente degli Spagnuoli*. It was after the plan of this splendid foundation that most of the Spanish colleges were founded at a subsequent period. The College of Bologna was opened for thirty-five fellows and chaplains, all natives of Spain, who were to return to their country after a residence of eight or nine years. Many of these students rose to the first dignities of the Spanish church. Precluded as they were by their profession from the ties of marriage, some of the most eminent among them took a pride in the foundation of literary establishments, upon the model of that to which they owed their wealth, and probably the happiest period of their life. Many others followed this example; and Spain was amply supplied with places of education in the course of the sixteenth century. Hence the number of Spanish universities, of which we have not the means of giving a complete list. The following, collected from memory, and without any attempt at arrangement, will not be found very inaccurate:—Salamanca, Alcalà de Henares, Cuenca, Osma, Valencia, Orihuela, Osuna, Zaragoza, Huesca, Seville, Granada, Palma in Majorca, Oviedo, Valladolid, Sigüenza, Santiago.

Many other literary establishments of the same kind might be mentioned in proof of the munificent zeal of the clergy; such as the episcopal seminaries, where young men intended for orders are educated, in some large towns where a university does not exist*.

But, before we proceed, a few remarks on the sources and tendency of this zeal will, perhaps, not be thought irrelevant. In a journal of education, anything that may throw light on the general helps on which its friends may rely, or the dangers against which they must watch,—any facts which may expose the selfish motives which are apt to disguise real opposition to mental progress, under the cloak of zeal for public instruction,—cannot be without some value.

Without attempting to unravel the complex designs of Providence, every attentive observer may discover, in the

* It may appear strange that these seminaries should often be founded at a short distance from places where there is a university. But the reason of this will appear, on considering that the Spanish universities do not afford accommodations for the residence of the under-graduates, who, on that account, live in lodgings under no superintendence, and consequently exposed to many moral dangers. Hence the Spanish universities are frequented almost exclusively by the youth of their own town and neighbourhood.

circumstances which attended the early propagation of Christianity, a remarkable provision against the natural tendency of all hierarchies to limit and monopolize knowledge. A priesthood, in alliance with a conquering power which subdues a timid race, can easily secure to the sacerdotal class the exclusive privilege of possessing and directing that kind of knowledge which can best support their power and their vanity. But the primitive ministers of the Gospel, having no political assistance in their arduous task of subverting the religion of an enlightened empire, far from being tempted to lay the foundations of an aristocracy of learning, had every inducement to increase their influence, by gradually endeavouring to show themselves not totally unworthy of being reckoned among the lettered class of the Roman people. In the West we accordingly find the most distinguished of the clergy anxious to obtain the praise of eloquence; in the East, that of philosophy—just as the established taste gave a preference to the one or the other. It is true that the *Roman* clergy, probably discouraged by the mass of talent collected in the capital, could not boast of a tolerable writer till the fourth century, and had to oppose the eloquence and learning of their much superior brethren of Africa, by a boldness and policy in which we may recognize the political school of the imperial city. As pagan Rome declined, some of the Christian clergy dared to covet the palm of literature which had dropped from the palsied hands of their opponents; but the attempt required an attentive study of those glorious literary monuments, whose language was still, in a great degree, vernacular. Thus Lactantius obtained the name of the Christian Cicero; and thus did Jerome approach the Augustan style for which he desperately contended *, in spite of a natural bad taste and a truly monkish mind. Similar to this, though more frequent, was the literary praise claimed by members of the Greek Church, one of whose most distinguished saints † did not recoil from the moral pollutions of Aristophanes, for the sake of the purity of his Attic dialect.

Thus the two main branches of the Christian Church, by being inseparably connected with the two most cultivated languages in the world, were destined to preserve, through the freezing darkness of the middle ages, the seeds of knowledge and taste which were to spring up at the appointed period. Gladly, indeed, would the Christian Clergy have

* His vision of angels flogging him for reading Cicero too assiduously is well known.

† St. Chrysostom.

limited the use of literature to their professional objects; or totally smothered it when they perceived the danger to which it must expose what they called *the Church*. Gregory the Great would have extinguished the very embers of classical learning, if, in spite of the fast setting ignorance of the sixth century, there had not been individuals who preferred Cicero's *Offices* to his *Morals*, and the miracles told by Livy to those contained in the good Pope's Dialogues.

The leaders of the Roman Church have seen more than once the danger of encouraging the cultivation of the two learned languages to which Christianity secured perpetuity; but—

'Nec tecum possum vivere, nec sine te'

may well be applied to ancient literature and that Church.

The influence of the clergy had become dependent on a kind of knowledge which could not but grow dangerous to that very influence. Whatever might be the prevalent corruption of taste, a connexion with its truest standard was preserved by the two languages of the Christian sanctuary. As both the eastern and the western Church had borrowed the weapons of philosophy, and couched their professions of faith in the technical language of the Academy and the Lyceum, metaphysical studies could never be relinquished by either. The spirit of the School Philosophy and School Divinity, which attained its full growth in the thirteenth century, had existed among the clergy from the earliest times, producing in every subsequent period an increase of that restless mental activity which could not fail in the end to break down the best contrived church barriers Yet some from policy, some from sheer blindness, and all from an instinctive perception of the dependence of their class on literature, the influential clergy of the Church of Rome have at all times been great promoters of learning. Rome, whose policy always threw the weight of her authority into the scale of the disputants who maintained the most popular doctrines, increased the confidence of the orthodox into a feeling of perfect security, and a firm expectation of triumph against every new doctrine to which the School disputations might give birth. To raise, therefore, everywhere a phalanx of such divines as the University of Paris had hitherto produced, became an object of holy ambition among the wealthy churchmen of every country.

But this zeal for the promotion of learning among the clergy knew no bounds when the study of Roman law began to flourish under the patronage of the lay powers. It was not, indeed, in the character of the Papal Church to allow this secular branch of learning to flourish without a counterpoise on the side of the clergy. The court of Rome could not behold without alarm the schools of Bologna, Modena, and

Mantua, crowded by law students, whose reputation, as a new literary class, would soon obscure that of her body of divines. To obviate this danger, a digest of ecclesiastical law was soon contrived in imitation of the Justinian Pandects, and professors of this new science, called Canon Law, were established wherever the Roman law was studied. The notion that no lawyer could arrive at excellence in his profession without devoting his attention both to the civil and the ecclesiastical code, was also studiously propagated, in order that no branch of professional education should flourish unconnected with the Church.

In regard to Spain, it is surprising how much the original connexion of its universities with Bologna has contributed to the enormous influence of the court of Rome over that unhappy country. When we look on its colleges and universities under this impression, it is difficult to define and analyze the sentiment which the memory of their founders calls forth. To deny them every kind of praise because they chiefly had in view the permanency of their church, would be to judge them with a severity little in accordance with true philosophical candour; but it would be absurd, on the other hand, so to respect their ignorance, their prejudices, and their passions, as not to wish most cordially for the final overthrow of the plans and means which they contrived in order to keep the human mind within their narrow, tortuous, and degrading track of knowledge. The utmost that equity demands is, that we should so pity, excuse, and respect their memory as to hope that, had they lived in our times, they would have joined the ranks of those who take a disinterested love of truth for their only guide. It is a very absurd feeling to consider the founders of public establishments as defrauded by posterity, when the erroneous views under which they made their bequests are disregarded. The history of the world stands as a solemn protest against all attempts to bind by gifts future generations to that which in their opinion shall be found contrary to the general interest. Could it ever be proved that the munificence of any individual was intended to act as a perpetual bar to the progress of the human mind, his memory should be held in abhorrence: 'thy money perish with thee' would not be too severe an answer to the proffer of such gifts.

The system of education pursued by the Spanish universities, though never very active or powerful, has unfortunately continued true to the views of its founders, and offered an effectual resistance to the mental improvement of the country. The general impulse felt by the European mind from an early part of the fifteenth century had hardly reached Spain in the

beginning of the sixteenth, when it was opposed by church and government with the most relentless rigour. The study of the ancient languages, which Cardinal Ximenes had begun to encourage by the compilation of his Polyglot, became strongly suspected of heretical tendency as soon as criticism was found to be ranged on the side of the Reformers. The universities of Spain were about to reap the benefits of classical instruction from such men as Brocensis and other Spaniards who had imported from abroad large stores of genuine knowledge, when the new-modelled Inquisition marked them all as objects of persecution. It has been said that the readiest way to collect a list of the best works ever published is to consult the Index of the Inquisition: we might well add, that to learn the names of the best Spanish scholars we should go to the list of persons who have inhabited the dungeons of the Holy Tribunal, or been kept for years under the constant apprehension of being made their tenants.

This jealousy arose almost simultaneously with the institution of the Jesuits, who soon spread themselves over the native country of their founder, offering gratuitous education to the Spanish youth. With their peculiar facility of accommodation to circumstances, the Jesuits adapted their system of studies in Spain to the spirit of its government, and to the real views of the Popes, whose sworn subjects they were, more than any other religious order. In Italy and France they carefully reared some men whom they might keep in the eye of the public as candidates for the highest honours in taste and ancient learning; and even the mathematical sciences were successfully cultivated by Jesuits abroad. But their labours in Spain were confined to the compilation of ponderous works on divinity, to the obscure yet influential service of the confessional, popular preaching, and writing books of devotion and mystic theology. Whoever takes the trouble of consulting the notices of Spanish Jesuits in Nicolas Antonio, will find that all their young men of talent were sent to pursue their studies at Paris, Louvain, or Rome. It was abroad that they employed such men in obtaining fame for the whole order: in Spain that fame would have been dangerous.

The Jesuits' schools were numerously attended by the Spanish youth. As Latin was taught in those schools *gratis*, and as a slight acquaintance with that language has always been considered among Spaniards as the distinguishing mark of an educated layman, many gentlemen, and not a few among the lower classes, sent their children to be instructed by the Jesuits Yet a critical knowledge of the Roman classics grew every day more and more rare in Spain.

Latinity was at a very low ebb among the Spaniards during the greatest part of the last two centuries, and Greek almost totally unknown.

The Jesuits' schools of Aristotelian philosophy were also much frequented in Spain. It was, indeed, the custom to attend their schools for serious study, and those of the universities for form's sake. Persons who wished to qualify themselves as lawyers and physicians attended the university lectures. But it is impossible to conceive the wretched state of the studies pursued under the university professors, till within the last forty or fifty years. The study of Roman law was carried on without the least acquaintance with Roman history; while that of canon law proceeded on the most unsuspicious acceptance of the forgeries contained in the Papal code. Medicine was made a mere branch of school metaphysics, and divinity an arena for the display of scholastic jargon. Syllogistic disputations were the only method of acquiring and displaying professional knowledge. To deviate from the established routine—to aim at any knowledge but that of the public schools—was reckoned a proof of eccentricity in those who were fortunate enough to escape a more serious suspicion.

The accession of the Bourbon family was, however, favourable upon the whole to Spanish learning and literature. But no effectual reform in the system of education took place till the Jesuits were expelled in 1767. Three years after that important measure, the Marquis de Roda, who had effected the expulsion, exerted his influence, as minister of Charles III., in the reform of the Spanish universities, known as the *Plan de Estudios*, which, but slightly modified, continues in force to this day. We ground the details and observations which are to follow chiefly on the experience of a gentleman who, little more than twenty years ago, was thoroughly conversant with the whole system.

There are few establishments in Spain for the diffusion of the first rudiments of knowledge. The lower classes seldom learn to read and write: those above them are as seldom instructed in any thing but those two accomplishments and the elements of arithmetic. Such as are intended for the learned professions attend a Latin school for three or four years. Since the expulsion of the Jesuits these schools are not numerous. Some private establishments, for the instruction of boys in Latin, were rising at the time of the French invasion, and a desire of improvement in the method of teaching was showing itself among the teachers. It seems that many more of these private schools have been opened since that time; but classical knowledge has made little or no progress.

The branches of knowledge taught in the Spanish universities are—1. Philosophy, including Logic, Physics, and Metaphysics. 2. Theology. 3. Roman Law. 4. Canon Law. 5. Medicine. The scholastic year begins in October and ends in May, with no interruption but that of a few holidays at Christmas and Passion-week. During this long term every student is obliged to attend one lecture in the morning and another in the afternoon. Attendance is strictly enforced, though, as the students live dispersed throughout the town, they have sometimes to walk a considerable distance twice a day. The loss of time with which this regulation might be charged at first sight is compensated by the advantage of keeping the idle out of mischief, and forcing the studious to take exercise.

The usual age for matriculation is between fourteen and fifteen. No student can proceed to any of the higher faculties without two years' attendance, at the least, in the philosophy schools. The first of these two years is devoted to logic; the second to the elements of natural philosophy, and such a slight knowledge of geometry as is necessary to understand the general laws of motion, and some theorems of mechanics. At the end of these two years, the examination for the degree of bachelor of arts takes place. The trial consists in questions put by the professors on the above-mentioned subjects. These examinations take place publicly, in the presence of the head of the establishment, called the *Rector*.

In the original plan of studies, attendance for another year in the class of moral philosophy was required of every one who intended to study law; and a similar attendance in the class of metaphysics on the part of those who wished to take the degree of master of arts. But the study of moral philosophy, for which in some universities was substituted what may be called *natural and international law*, became an object of suspicion to the government in consequence of the French revolution, and the professorship of moral philosophy was suppressed. A dispensation of the third year of philosophy, as it was called, was easily obtained from government.

Few, comparatively, took the degree of master of arts, both because the previous examination, or degree of licentiate, was severe, and on account of the expense, which was considerable. The present statement, however, applies chiefly to the universities of Seville and Osuna. Local customs produced some variety on these and similar points in other places. Thus, for instance, masters of arts had no vote in convocation at Granada. Again, the examination for a licentiate's degree in arts at Osuna was entirely freed from the scholastic forms, which, in spite of the new plan of studies,

were still preserved in most universities. But it would be useless to enter into minute details. The class-book for the study of philosophy was the work of an Italian monk, named *Altieri*.

The study of divinity takes up five scholastic years. The first is employed on the work of Melchior Canus, *De Locis Theologicis*, which is considered as an introduction to all other branches of the sacred science. Four years more must be employed in the attendance at lectures, morning and afternoon, on *dogmatic*, *moral*, and *expository* divinity. The students are often practised in those displays of knowledge, and skill in disputation, which are the established tests of proficiency for the higher degrees at the public trials, by which some of the best pieces of church preferment are obtained all over the kingdom. As this is a subject intimately connected with the plan of the Spanish universities, it will be proper to notice it here.

Whenever the comparative knowledge of several persons is to be tried in a public competition, or the claims of one individual to the honour of a high degree are to be ascertained, the following method is generally employed:—The candidate is to choose one out of three subjects offered him by lot, upon which he must lecture in Latin for one whole hour the next day, and answer, extempore, the objections of his opponents These subjects (called *puntos*, *i. e.* points) are taken from the works which the deeply-rooted prejudices of the country hold still as the foundation of each of the faculties recognized in the universities. Proficiency in arts, *i. e.* philosophy, is generally tried by lectures on the Organon and Physics of Aristotle; in divinity, on the master of the Sentences, Petrus Lombardus; in Roman law, on the Pandects of Justinian; in canon law, on the Decretum of Gratianus; in medicine, on the Aphorisms of Hippocrates. These exercises are as fatiguing as they are inappropriate to the state of knowledge which was contemplated in the plan of the reform of studies. The truth is, that even the absolute power of the Spanish government was inadequate to bring about a substantial change in the universities.

This difficulty was fully perceived by the principal movers of the reform—Roda, and his friend Campomanes. Supported by a small number of enlightened men, their next attempt was to create what might be termed an *unprofessional* knowledge in the country, in order to make it work against monkish learning. The character of these views shows itself under a certain degree of cautious reserve, in the works of Campomanes, which appeared about the year 1774. His *Discursos sobre el fomento de la industria y la*

educacion popular contain a variety of observations on political economy and the diffusion of useful knowledge, which, though frequently erroneous, especially on commercial subjects, evince a powerful mind stored with information, and deeply impressed with the degraded state of his priest-ridden country.

Campomanes and his friends did not confine themselves to mere speculations on these points. By means of their official influence at court, they procured a royal decree for the establishment of *Sociedades Patrioticas* (Patriotic Societies) in all the principal towns of Spain. The gentry and the secular clergy were invited to join in the formation of these bodies, whose object was to be the promotion of agricultural knowledge, the encouragement of manufacturing industry, the establishment of elementary schools, the improvement of those already established, the collection of funds for endowing a professorship of mathematics, and an academy for the study of drawing and the fine arts, in each of the head towns of the provinces.

The effect of these societies would have been great and rapid had not the alarm produced by the French revolution induced the original promoters of this plan to oppose the impulse which they themselves had given. Orders were sent to the Inquisition to exert its vigilance against the spread of the new political doctrines, and not to spare the party to whom a taste for mental pursuits, not in accordance with the scholastic system, had procured the name of *ilustrados* (the enlightened.)

The effects of this sudden change were soon visible in all the principal towns. Those persons who had been lately employed to assist in Roda's reform were given up to persecution. The periodical works* set up at Madrid, with the object of dispelling popular superstition, and ridiculing the jargon of the universities, were stopped. The whole army of monks was roused into exertion, and urged, by a royal order, to preach against modern philosophers—a broad designation, which brought into danger all but the monks and their friends. These measures could not but spread dismay among the few, who in some of the universities, and especially at Salamanca, had seconded the plan of literary reform, and kept the bigots in check for a time. Some were subjected to long prosecutions and imprisonment by the Inquisition, and all were made to live for years under its terrors. But, in spite of fear and danger, such Spaniards as had tasted the forbidden fruit—that kind of knowledge which 'comes

* El Censor; El Apologista Universal; El Pensador.

home to the bosoms and business of men'—could no longer relish the dry, unsubstantial chaff of the schools. The new taste for science and philosophical speculation continued to gain proselytes, especially among the lawyers. Even the lay gentry felt a desire for instruction. The peace with France in 1795 changed the domestic policy of the Spanish government, and fresh attempts at mental improvement were supported by the Prince of the Peace. But as no department of knowledge, directly connected with the moral relations of man, could be cultivated without danger to the church and state, the main progress of Spain was almost confined to pure science. A practical instance, in regard to mathematics, will illustrate this fact.

The knowledge of mathematics, as a science, had become quite extinct at Seville, when, about the year 1787, the Patriotic Society provided a small fund for the establishment of a mathematical school. M. Pierre Henri, a French mathematician, whose zeal for the propagation of his favourite science amounted to real enthusiasm, offered himself for the intended professorship. Living in contented poverty, he considered the rapid progress of *two* of his pupils as an adequate reward for his labour. Unfortunately for his studious repose, the execution of the king of France was the signal for a most shameful persecution of all Frenchmen resident in Spain: the local magistrates imprisoned every one from whom they could obtain a sum of money; and to cover their extortions under the veil of loyalty, did not spare those whose poverty might otherwise have been their protection. Henri was among the latter;—confined in a dungeon during the whole period of the Spanish war with Republican France, he asked for no other relief or indulgence than pen, ink, and paper, and a cell with sufficient light to employ himself in the composition of a Treatise on Mechanics, in which he was engaged at the time of his imprisonment. The peace of 1795 stopped this cruel treatment; but Henri had contracted a dropsy, which terminated his life a few days after his liberation. After Henri's death, one of his pupils succeeded him in the professorship, whilst the most eminent of those he had instructed gave private lectures about the town. The number of mathematical students was but small at first; yet as the Patriotic Society held a public examination in which annual testimonials, consisting of a few books, were awarded to proficients in elementary mathematics, even this slight encouragement was enough to inspire some young men of family and wealth with a desire of scientific distinction. The vicissitudes of Spain during the last twenty years do not

seem to have checked this spirit of mental improvement: during the existence of the Cortes, the *old Patriotic Societies* resumed their labours with revived and unshackled energies; and such is at present the number of mathematical students in Spain, that a complete 'Course of Mathematics,' published by *Don Alberto Lista*, Henri's most distinguished pupil, and a man whose various and profound knowledge would do honour to the most enlightened countries in Europe, has been purchased by the Spanish booksellers for a sum which secures a subsistence to its author.

We shall finish this sketch with a summary view of the present state of education in Spain, and a conjectural estimate of its prospects.

It is a melancholy consideration, that the mental improvement of Spain is essentially at variance with the whole frame of society in that unhappy country, and it must either destroy or be destroyed. The question whether the reform, begun in 1770, could have been so contrived that it should gradually modify and improve the old institutions, is a difficult one; but we feel a strong conviction that the promoters of that scheme overlooked the only means which had a chance of producing a beneficial change. Had they promoted classical studies in the first place, instead of beginning by science; had they required an examination in ancient literature for the degrees in arts, and gradually raised the standard of scholarship necessary for the highest honours in that faculty, it is probable that the universities, instead of being one of the great obstacles to Spanish improvement, would, by this time, have cordially joined in promoting it. We are very far indeed from advocating the *exclusive* use of classical literature for the purpose of education; or of recommending that study in the same degree under all circumstances; but the literary institutions of Spain were just in a state which left no alternative but that of ameliorating them by studies directly connected with their system and nature, or taking a remote chance of their destruction after a fierce and protracted struggle with a rival knowledge. By the encouragement of scholarship in the universities themselves, the fear of innovation and hostility to the established learning would have been much allayed. The clergy, if directed again to those studies, which, from their intimate alliance with the moral and social tendencies of the mind, have very properly been called *humanities*, would probably have become instrumental in the important work of removing from theology that crust of scholastic barbarism which makes it impervious to reform. Ancient literature was considered, in the original plan of the

Spanish universities, as the foundation of all other knowledge. At Salamanca, lately the head-quarters of scholasticism, a college, called the *Trilingue*, had been founded at an early period, for the study of Latin, Greek, and Hebrew. There are still professorships of Greek at Madrid, Valencia, and some other places. Yet these establishments were totally neglected. The truth is, the reformers of Spanish education had been brought up in the French school of the time of Louis XV., and they neither possessed nor valued a classical taste. In their impatience to oppose the scholastic jargon of the universities, they thought only of establishments totally unconnected with those ancient bodies: unable to put them down at once, they endeavoured to create a taste, especially among the gentry, which might in due time bring the Universities and their learning into utter contempt. Colleges for the education of the *noblesse* (*seminarios de nobles*), and military schools for the youth of the same class, who wished to enter the army and navy, were established in various parts of the country *. These and a few other schools, on the same plan of opposition to classical and professional learning, have already spread among a great portion of the better classes, not indeed the useful knowledge of physical and political science, but a flippant contempt of all other studies. The love of reading has, indeed, wonderfully increased; but it is a reading which must add to the evils we are lamenting. In proportion as a certain knowledge of French has of late become a common acquisition in Spain, books in that language have been diffused over the Peninsula. As most of this reading takes place by stealth, and without guidance, those works are naturally preferred which, without demanding the labour of reflection, impress the mind with a delusive consciousness of suddenly acquired knowledge. Every one who has reflected upon these subjects is aware that this delusion is most readily produced by that kind of philosophy which, to borrow a well-known logical word, we may call *destructive*. We do not use the term in the spirit of invective, nor do we mean to deny that where an essentially wrong system has long prevailed, a strong sense of its errors must be the first step towards reform: we wish only to draw the attention of our readers to the natural effects of the principles in question, when acting without counterpoise; and to point out their tendency to produce a superficial character, incapable of patient investigation, rash in inference, despondent in diffi-

* Vergara, Cadiz, Madrid, Ferrol, Segovia.

culties, and ready to settle into a sardonic laugh as the ultimate result of all moral and political inquiries.

The system of Spanish education must, therefore, year after year, widen the breach which already divides that country into two parties perfectly irreconcileable with each other. The struggle which threatens to exhaust the vitals of Spain is neither of the poor against the rich, nor of the gentry against the nobility and the court; it is a contest arising from *mental antipathy*, entirely produced by the opposition of the *established* education and that which, supported by the ill-contrived reforms already mentioned, every Spaniard endowed with an active mind more or less gives to himself. The mutual hatred of the two classes of Spaniards thus opposed cannot be well conceived without a thorough knowledge of their respective circumstances. *In possession of wealth and honours, the clergy (those, we mean, who are sincere bigots) consider their influence and privileges as inseparably connected with the glory of heaven and their country. Around this compact nucleus are ranged the ignorant* and superstitious—a prodigious mass, whose mental pride knows no gratification but that of extorting respect for what they themselves revere. In ill-disguised yet unavowed opposition to this formidable phalanx stand a daily growing body, composed of people of all ranks and professions, who, whatever may be their want of sound information in other things, yet are quite able to estimate the worthlessness and mischievousness of their adversaries' knowledge. It cannot, however, be denied that whatever talent and real information exists in the country is unquestionably on this side. Elated by this consciousness, and galled by the sad necessity of vailing to those whom they despise, the *liberal* party cannot conceal their supreme contempt of the bigots—an offence which dignified ignorance will bitterly resent even in a state of security, but much more when it feels itself in danger.

If either of these parties were powerful enough to subjugate the other, the mental fever of the country would be less violent, and some crisis might be expected at no distant period; but neither can the Church nor the *Liberals* (for these are really the two contending parties) have the most distant prospect of disarming their adversaries. The contest unfortunately must continue for an indefinite period, during which the two rival systems of education which exist in that country must carry on the work of making one-half of the population strangers, foreigners, and enemies to the other.

/ THE SCHOOL OF ATHENS DURING THE DECLINE OF THE ROMAN EMPIRE.

The main design of this article is to exhibit a view of the state of education at Athens in the fourth century of the Christian era. Our motive for selecting Athens from the countless number of great and flourishing cities contained at this period in the Roman empire for the subject of our inquiries, is simply, that the same causes which rendered it the most celebrated seat and nursery of arts and learning in the ancient world, have likewise afforded us means of collecting more circumstantial information concerning this part of its history than we can obtain with regard to other places, which may have equalled or surpassed it in size and splendour, but were inferior to it in literary renown. It is in some degree from a like motive that we propose to dwell more particularly on the period above-mentioned; it being one about which we happen to possess more minute and interesting details on education than any other period supplies. The century, however, to which we are thus accidentally directed, is that which would otherwise have engaged our peculiar attention, as the last in which the ancient studies, that enabled the glory of Athens to survive its freedom, maintained an equal struggle against the new religion that was at this time crushing the old faith out of which they had grown, which for a time they supported, and with which they sank, fell, and perished.

The ultimate end of this sketch is to illustrate the general condition of education in the Roman world under the emperors. And it is more especially to avoid the appearance of aiming at anything like a complete history or description of a field so vast and varied, that we have laid down, at the outset, a precise limit of time and space: but since we have a general as well as a particular object in view, we shall not confine ourselves so closely to the latter as to abstain from all excursions into other regions, by which we may be able to throw light on the former. We are about to consider Athens as a high school or university, open to all the youth of the Roman empire. But before we attempt to survey its internal character and economy, we shall take a brief retrospect of the causes that affected its outward prosperity, and examine the relation in which it stood to other seats of learning, the encouragement afforded by the government to certain kinds of instruction, and the relative rank which the several branches of education held in public esteem.

The celebrated embassy sent by the Athenians to plead their cause at Rome, a short time before Greece was reduced to a Roman province, consisting of the three most eminent philosophers of the age, the Stoic Diogenes, the Peripatetic Critolaus, and Carneades, the founder of the third Academy, found a strong party among the great families at Rome warmly prepossessed in favour of Grecian literature, and ready to do full justice to their various talents and accomplishments. We may gather from Cicero's account of the mission (De Orat. ii. 37), that the Athenians had received previous intimation that they could not select representatives more agreeable to their powerful patrons. We also perceive that the operation of this event was by no means confined to the effect of diffusing among the educated Romans a more general knowledge of the Greek philosophy. The envoys, while they explained and defended the tenets of their respective schools, also gratified the curiosity of their hearers by exhibiting specimens, all excellent in their kind, of the different rhetorical styles, by which each sect was distinguished little less than by its philosophical doctrines. The sententious brevity and dialectic subtlety of the Stoic,—the exuberant copiousness and equable flow of the Peripatetic,—and the brilliance, the energy, the versatility and dexterity of Carneades, who delighted in shifting his side, and showing that he could make every cause equally probable, afforded contrasts new to most ears, and in which every taste found something to relish and admire. Notwithstanding the strenuous opposition of the Romans of the old school, headed by Cato the Censor, who is said to have been particularly scandalized at hearing Carneades take up the cause of justice one day, and the next maintain that of injustice with equal force of argument, this visit contributed much to establish the ascendency of Greek literature at Rome. It became, from this time, more and more an indispensable branch of education for the higher classes of society, and particularly for all who chose the forum as their road to wealth and honours. The demand for instruction in the Greek language and letters, however, was amply supplied by the Greeks who settled at Rome, and either opened schools of grammar and rhetoric there, or found employment in some wealthy family. With this the Romans appear to have been usually contented, and it seems never to have been very common to send a young man for education to a Greek city: nor, when this was the case, was Athens always preferred. Marseilles, as we learn from Tacitus (Agricola, c. iv.), was recommended for this purpose by a happy temperament of Grecian refinement and pro-

vincial simplicity of manners. A similar inducement may frequently have dictated the choice of Apollonia, to which Augustus was sent by his great-uncle, the dictator, to pursue his studies: it is distinguished by Strabo as a most orderly city. It seems, moreover, that in the time of Cicero, the Romans, who sought instruction at Athens, resorted thither rather as to a school of philosophy than of eloquence. The taste of the literary public was divided between two styles of composition, which Cicero designates as the Attic and the Asiatic. The former, dry and nervous, may have prevailed at Athens; at all events the latter, which inclined to a vicious redundancy, was long cultivated in the cities of Asia Minor, and, in a more moderate degree at least, at Rhodes. This appears to have been the more popular among the Romans. Cicero's great rival, Hortensius, was entirely addicted to it; and Cicero, whose favourite master was a native of Alabanda in Caria, who had settled himself at Rhodes, was strongly biassed the same way in his youth. Accordingly, in the tour which Cicero made to Greece for improvement at the beginning of his forensic career, he devoted the time he spent at Athens almost entirely to philosophy, and then crossed over to Asia to study rhetoric under the guidance of the Asiatic orators, who, in his judgment, numbered among them the most eloquent men of the day (Brutus. 91).

The Asiatic cities, however, did not continue long to dispute the pre-eminence of Athens as a place of literary education. When the triumph of Augustus had united the Roman world under the peaceful dominion of a single master, the intercourse between the eastern and western provinces of the empire, which till then had been interrupted by political events, became more active and regular. The ambitious and studious youth of the remote districts who wished to get rid of a provincial dialect and accent, and to draw from the purest source of the Greek language and learning, resorted chiefly to Athens. Strabo, writing in the early part of the reign of Tiberius, dwells at some length on the flourishing state of the school of Tarsus in Cilicia; he asserts that its inhabitants surpass both Athens and Alexandria, and every other place he knows, in the ardour with which they cultivate philosophy and all other ordinary liberal studies. But he remarks that there was this difference between Tarsus and the other cities he mentions:—At Tarsus the students were almost entirely natives of the place; few strangers resorted thither, and even the citizens commonly travelled to complete their education elsewhere; whereas with the other cities he has named (which are only Athens and Alexandria), the

reverse is the case: they are much frequented by foreigners, but few of the natives either go abroad for learning or pursue it with much diligence at home. He, however, expressly excepts Alexandria from the latter part of this remark; for, he observes, it not only receives many foreign students but sends out many of its natives, who settle as teachers elsewhere. Rome, he adds, is full of professors of literature from Tarsus and Alexandria.

In this passage Athens appears to be mentioned only by way of example, and to be placed on a level with many other cities, as to the number of strangers that resorted to its schools; but, about a century later, the state of the case, though probably not altered, becomes clearer. We are informed by Philostratus, in his Lives of the Sophists (1. 21. 5), that a professor of rhetoric, who taught at Smyrna in the reign of Nerva, acquired such reputation, that scholars flocked to him from all the adjacent regions—Ionians, Lydians, Carians, Mœonians, Æolians, and the Greeks of Mysia and Phrygia. This, the biographer observes, was nothing extraordinary; but his fame attracted also Cappadocians and Assyrians, Egyptians and Phœnicians, Achaians of the best families, and all the youth of Athens. By comparing what is here mentioned (no doubt with much exaggeration) as a singular occurrence, with what another passage in the same work represents as the ordinary state of things in the same period, we may collect that the natives of the eastern provinces here named, when they went abroad for instruction, commonly sought it at Athens. In the second passage (2. 1. 7), we find it incidentally observed, that the interior of Attica is the best school for one who desires to speak with propriety; for the Athenians of the city, who receive as lodgers youths from Thrace and Pontus, and other barbarous nations in shoals, corrupt the purity of their own language more than they improve that of their guests.

Though we are here only concerned in ascertaining the fact, we will remark, that though the great name of Athens, and the celebrity of its professors, undoubtedly constituted the principal attraction that drew this concourse from distant lands, other accidental causes probably contributed very considerably to the same result. After the blow inflicted on it by Sylla, the city enjoyed a long interval of security, quiet, and prosperity, under the shelter of the Roman eagle, before its repose was disturbed by the presence of the Goths. During the early part of this period it was honoured and adorned with repeated marks of royal favour. Many of the emperors condescended to partake in the Eleusinian mys-

teries, which maintained their superior dignity against the rival superstitions of Phrygia, Persia, and Egypt. The best among the Cæsars loved to be called and known as friends of Athens: they embellished it with sumptuous buildings, in which, however, even their magnificence was eclipsed by the liberality or ostentation of Herodes Atticus; and they exerted their power still more directly in favour of the school, by the rewards and privileges they conferred on its teachers.

This leads us to the consideration of a point more immediately connected with our present inquiry—the degree and manner in which the Roman government interposed its influence or authority in directing the education of its subjects. During the republic, all the measures that were taken with this view appear to have been entirely restrictive and prohibitory. In the year 592 of the city, an ordinance of the senate directed the prætor, M. Pomponius, who had consulted it on the philosophers and rhetoricians then settled at Rome, to take order that such people might be there no longer. Seventy years after (Gellius, xv. 11), the censors, one of whom was the celebrated orator Crassus, published an edict, in which, after premising that they had been informed there were persons who had set on foot a new kind of learning, and drew the youth to their schools, and took upon themselves the name of Latin rhetoricians, and caused young men to idle away the whole day, and that such practices were an innovation contrary to the usages and customs of their ancestors,—they declare it to be their pleasure that those who keep and those who frequent the afore-mentioned schools should understand that the censors disapproved of them—a pregnant intimation in the Roman style that they were to be immediately closed. The exact time at which measures of direct and public encouragement succeeded the connivance and toleration under which the prohibited studies soon regained admission is not so easy to determine, as it is to state the nature of the provisions themselves, though even as to this all is not perfectly clear. The Roman emperors had not the same motives of policy or vanity which induced one of the Ptolemies to found an Academy of Letters, to which he assigned a spacious building in his palace, together with grounds and walks, and which he endowed with lands for maintaining the common table of its members, who, for their learned wrangling and good living, were maliciously compared by a Greek satirist to birds fatted in a coop. The wretched tyrants who filled the throne of Rome during the greater part of the first century were occupied with other matters than the general interests of learning; and the brutal

Domitian, who sank below the worst of his predecessors in his incapacity for intellectual enjoyment, and who hated philosophy as an ally of liberty, banished its professors from the capital, and even from Italy. Soon, however, after his death, if not before, the government began to foster certain branches of art and knowledge, by holding out privileges to those who practised and taught them.

The Pandects (L. xxvii., t. 1, c. 6) contain extracts from a rescript of Antoninus Pius, which was addressed to the cities of Asia, but was held to apply by construction to the whole empire. In one of these extracts, the emperor speaks of a constitution, by which his father (Adrian), at the beginning of his reign, had confirmed the honours and immunities then existing in favour of four classes of persons—philosophers, rhetoricians, grammarians, and physicians. He himself fixes the number of professors of each class who are to enjoy these privileges, (which consisted in exemption from certain troublesome and expensive municipal charges and duties, as well as from serving in the army, and from the obligation of guardianship,) according to the rank of the cities in which they practised. Those of the highest order, which were dignified by the title of metropolis, are allowed to have ten privileged physicians, five sophists or rhetoricians, and as many grammarians: the cities of the second order, including those in which courts of justice were held, may have seven physicians, and four of each of the other classes: the smaller towns, five physicians, and three of the two other classes. But of philosophers no number is determined, for which the emperor assigns a reason. '*Philosophers*,' he says, '*are rare: but I am of opinion that those who abound in wealth will voluntarily contribute to the service of their country; and those who do not consider their substance as public property are clearly not philosophers.*' It must be observed that the limit laid down in this law did not restrict the number of persons who were permitted to practise these professions, but only that of those who were to enjoy the immunity; and as to this, it was held, that although the number could not be exceeded, it might be diminished at the pleasure of the municipal corporations; nor did the immunity exempt any one from his share in the public burdens of his own town, unless he resided and practised there. As to the professions thus selected as objects of encouragement, we will observe, that the medical art shared the vicissitudes of philosophy and rhetoric at Rome. It was at first viewed with jealousy as a foreign and dangerous novelty by Cato the elder and the men of the old school: it was then barely tole-

rated,' and only began to be favoured and honoured under the emperors. The fortunes of jurisprudence were widely different. Confined originally to the highest order in the commonwealth, afterwards cultivated by men of the first rank, it was long regarded as a science too noble to be communicated by the ordinary modes of teaching. The studious youth acquired their knowledge, not by formal lessons of a salaried professor, but gratuitously and casually from the great man, who threw open his doors to them at the same time as to his clients. Under the emperors, the instruction in this branch of learning became venal and regular, and its professors were exempted from the burdens of guardianship, and perhaps placed on a level with the other privileged classes; but this immunity was expressly confined to those who taught at Rome, which remained to the last the only recognised law-school of the West, as Berytus and Constantinople became in the East. It is amusing to observe that the athletes, who had obtained three prizes in some of the sacred games, enjoyed the same distinction, while poets were expressly excluded from it.

The argument which Antoninus Pius drew from a philosophical topic to justify the withholding from philosophers the boon which he conferred on the masters of other sciences, seems not to have convinced his philosophical successor. Indeed, if we depended on the biographer of Pius in the Augustan History, we should be compelled to suppose that he himself had violated the principle of his own law; for we read there (p. 21, C.) that he assigned honours and salaries to rhetoricians and philosophers in all the provinces. But it seems probable that in this statement the author has confounded the enactments of Pius with a measure of Marcus Antoninus. What the former emperor did appears from his own words; and there is no ground for believing that he either endowed all the schools of rhetoric and philosophy in the empire from the treasury, or regulated the amount of the remuneration that each city was to bestow on its public professors. On the other hand, that Marcus established a foundation of this kind is well authenticated; but it was at Athens, and for the honour and advantage of that city alone. He appointed a yearly salary of about three hundred pounds for the heads of the four principal sects—the Platonics, the Stoics, the Peripatetics, and the Epicureans, and for a professor of rhetoric. Philostratus (2. 20. 1) also mentions a chair of politics (πολιτικὸς θρόνος), with a lower salary; but this seems not to have belonged to the imperial foundation, and, perhaps, was not a permanent institution. In this en-

dowment, M. Aurelius followed the example of Vespasian, who, as Suetonius informs us, was the first that assigned annual stipends to Greek and Latin rhetoricians from the treasury, which, of course, refers only to Rome. He seems to have designed to give an impulse, which he may have perceived to be wanting, to the philosophical studies of Athens; and it is not incredible that the measure had some connexion with his hatred and jealousy of the Christians. He committed the choice of the four philosophers to his friend Herodes Atticus, but reserved to himself the appointment to the chair of rhetoric, in order to mark his sense of the eminent merit of Theodotus. This, however, was not intended to establish a precedent for subsequent nominations, which were left to the free suffrages of the most respectable citizens. We learn this from a dialogue of Lucian (Eunuchus), which, though it was meant merely to raise a laugh against the philosophers, deserves some notice, especially as it was written not very long after the endowment was made. It describes a contest that took place for one of the vacant chairs—that of the Peripatetic school. The Peripatetics, one of the interlocutors observes, do not hold outward goods to be absolutely worthless; and there was a very warm competition for the prize which was to be awarded by the votes of the most honourable citizens. There were many candidates; but two of them had clearly the advantage over the rest, and their merits seemed pretty evenly balanced. The trial began with a discourse from each of the rivals, in which he explained and defended the doctrines of Aristotle; and then they entered into a severe scrutiny of the life and character of one another. This altercation is the ludicrous part of the dialogue; but though both its matter and form are probably fictitious, we may safely infer from it that an inquiry into the morals of the candidates formed an indispensable ingredient in the examination on these occasions.

This, however, was a local and extraordinary regulation. In general, the income of a professor depended entirely on the numbers of the class he could draw to his lecture-room, though it may not have been unusual for a city to attract a man of high reputation, by adding a fixed salary to his ordinary emoluments. The oration of Libanius, entitled, *In behalf of the rhetoricians*, contains some particulars which will throw more light on this subject than any general remarks. The purpose of this composition is to prevail on the senate and people of Antioch to take some measures for the relief of four persons, who kept as many schools of rhetoric in that city: they are described as reduced to a state of

miserable and humiliating poverty. The author begs his hearers or readers not to suffer themselves to be deceived as to the condition of those for whom he pleads, by their title of professors or rhetoricians, or by their sitting upon thrones, or by any other circumstance in their outward appearance, but to listen to the truth from one who knows precisely the real state of the case. He assures them that some of these professors, notwithstanding the dignity with which they are invested, cannot afford the expense even of a small house, but are fain to live in hired lodgings. If one takes a house, he borrows money to purchase it, and is ever after loaded with debt; some cannot even maintain a couple of slaves; those who have committed the imprudence of marrying, and have become fathers, suffer, of course, aggravated distress, which sometimes compels them to pawn their wives' jewels for bread. It will be objected, the orator observes, that the stipends they receive from their scholars is sufficient for their maintenance. To this he replies, that these sums are pitifully small, and that the professors have great difficulty in collecting them from the parents of their pupils. Libanius attributes the evil partly to the misfortunes which had impoverished many families at Antioch, and partly to the system that had been adopted at court, which tended to check all liberal studies. The remedy he proposes is, that the senate should allot competent portions of the public lands for the subsistence of these unfortunate persons, and he alleges as a precedent the instance of a more successful rhetorician, who not long before had been rewarded for his services by the grant of a fruitful vineyard, in a beautiful situation, the property of the city. Libanius speaks elsewhere of the difficulty he himself experiences in obtaining his professional dues, though he frequently declares his own indifference to money; yet, he observes, it is enough to provoke a man, and make him give up teaching, that a youth, when he has received from his father his master's stipend, instead of paying it to the sophist, should squander it away in dice or drinking, or things still worse, and should then have the impudence to show himself the forwardest in the school, as if he owed nothing, or had cleared all scores by merely presenting himself there. In his correspondence with St. Basil of Cæsarea, who, notwithstanding the difference of religion and station that divided him from Libanius, kept up a friendly intercourse with his old schoolfellow, and frequently sent him some of his own spiritual children as pupils,—the sophist professes himself ready to impart his instructions gratuitously to all who are capable of receiving them, though they

have nothing to give for them; and perhaps we shall see grounds for believing that this kind of liberality, by which, in fact, more was gained than lost, was very generally practised by persons of his profession, though he mentions, at the same time, that he had not found in his own instructors the same indifference to outward advantages, and the same preference of ability and diligence in the poor scholar to dulness and indolence in the rich one, which he constantly shows toward those committed to his care.

Before we turn our attention to another side of our subject, it will not be irrelevant to our main purpose to consider a little more closely the nature of the school over which Libanius presided at Antioch, during a great part of his life, with signal success and brilliant reputation. We shall have occasion hereafter to notice some of the earlier occurrences of his life; but we may here remark, that, on his final return to Antioch, his birth-place, he came with the expectation of succeeding immediately to the *throne* of a very eminent rhetorician, Zenobius, who had promised to abdicate in his favour. This friend, however, delayed to fulfil his engagement, and Libanius found himself forced to spend his eloquence on a class of fifteen youths, the greater part of whom he had brought with him to Antioch, and whom he taught in his own house. Here he languished, without the dignity of a public professor, and wasting his energies in irksome inaction, which he compares to that of Achilles at his ships, until a friend advised him, if he would increase the number of his pupils, to transfer his school to a more public situation, and urged him to take possession of one of the temples. It appears to have been not uncommon to apply these buildings to such uses. Libanius regrets, in one of his letters (lxxxvi.), that the temple of Fortune, which had once been thronged with students, was no longer so occupied: it had probably been converted into a Christian church; and he ascribes great importance to the advantage which Zenobius possessed in holding his school in a temple of the Muses. (Another instance occurs in Philostratus, 2, 27. 5.) He, however, took a house close to the market-place, and soon experienced the benefit of the change, his audience being doubled. He next removed to the senate-house (probably a room under the same roof), where his *flock* became so numerous, as to give him employment till sunset; whereas, according to the general custom, the sophists ended their daily work of instruction at noon. The death of Zenobius left him, though not without competitors, yet confessedly the first rhetorician at Antioch.

In one of his orations, (the 65th in Reiske's edition,) in which he vindicates the merit and success of his scholastic labours against his detractors, he boasts of several distinguished men whom his school had sent out to discharge important offices in the state, and of the great variety of countries that had entrusted a part of their youth to his care. It is remarkable, that in a long list of provinces, including (together with Thrace and Constantinople) almost the whole of Asia then subject to the Romans, he notices Cappadocia as having contributed least to the number of his pupils; yet, as we have already mentioned, his correspondence with Basil speaks of many whom the saint had recommended to him from his Cappadocian see, and one letter (1595. Wolf.) begins with the words—'*Will you never have done, Basil, filling this sanctuary of the muses with Cappadocians?*' These youths undoubtedly came to finish, with the assistance of Libanius, the education that was to prepare them for the various pursuits to which they were destined, and their average age was probably the same at which it is usual to enter a modern university; yet Libanius appears in a character to which we should more readily apply the name of schoolmaster than of professor. Thus, in one of his letters, (891,) he describes himself as seated in the midst of youths, who are receiving his lessons partly by persuasion and partly by constraint. What the engine of this constraint was, he informs us very distinctly in a great number of passages. In one, (Or. 2,) where he is defending his character from a charge of moroseness, he alleges, as a proof of his good nature, that he is not austere or stern even toward his scholars, but renders their tasks agreeable to them by the gentleness of his deportment. And hence, he says, I have no need of blows, for they do everything willingly; which must be considered as a rhetorical colouring; for elsewhere, when it suits his purpose, he protests that he has not spared blows, or words more galling than the lash, to rouse indolent tempers. (Or. 65.)

Quinctilian (II. 2.) notices and condemns the practice, according to which boys and youths bordering upon manhood were brought together indiscriminately in the schools of the rhetoricians. He remarks, that a boy usually continued to attend those schools for some time after he had grown a young man; and that among the Greeks the student entered them at an earlier age, because in so doing he did not forthwith cease to frequent the grammar school where he had imbibed the rudiments of literature. The oration of Libanius, *On the carpet*, (59,) affords a proof that the indu-

ence of his authority did not extend far beyond the walls of his *sanctuary*; and that he had not succeeded in inspiring his pupils either with fear or self-respect, sufficient to restrain them, when out of his sight, from indulging in the excesses of school-boys broke loose, with the boldness and strength of a riper age. The occasion of this discourse was an incident that had just occurred, and had made a great deal of noise in Antioch. Youths of good condition, while they were pursuing their literary studies, were usually attended by a domestic called a pedagogue, who, if a slave, which he seems not always to have been, belonged to a class esteemed very superior to that of common menials. His functions resembled very closely those of a private tutor at a public school in England, whose business is not so much to communicate any particular kind of instruction to his pupil, as generally to watch over his conduct, and to enforce industry and good behaviour. For this purpose, the pedagogue was entrusted with a large share of parental authority, and was even permitted to use corporal chastisement. It appears that one of the persons who attended the scholars of Libanius in this capacity, had made himself obnoxious to a part of them. Libanius insinuates that they had been instigated against him by one of his own rivals, a professor of Latin rhetoric, who had taken offence at the pedagogue for decrying the studies of his school. The consequence, however, was, that some of the more robust wreaked their vengeance on the unfortunate man by tossing him in a carpet. The outrage was committed publicly, and caused great scandal, both in the class to which the sufferer belonged, and among the public at large. Libanius himself did not escape censure, as if his excessive lenity had encouraged the youths to this breach of discipline. He therefore addressed a formal oration to the perpetrators and their comrades, in which he endeavours to impress them with the enormity of their offence. What is chiefly remarkable in this piece, beside the fact to which it immediately refers, is, first, the opening, which alludes to some disorders that had broken out on a prior occasion among the students, and had been repressed by the orator's remonstrances; but still more one of the topics employed to aggravate the heinousness of the act. 'It would have been less atrocious,' the writer observes, 'if the victim had been one of the profane persons not protected by the sacred ground of the muses. An insult, indeed, offered even to an artisan, is unbecoming in one who is reared within these hallowed precincts, because it tends to bring learning itself into disrepute among the vulgar. Still a sally of youth-

ful petulance directed against people of this condition would have been comparatively a venial fault? But at least let the nursling of the muses confine his mischievous propensities, if he cannot completely suppress them, to persons whose station keeps them without the pale of liberal education; let him go no further (we here translate literally) than giving foul words to a goldsmith, insulting a shoemaker, striking a carpenter, kicking a weaver, &c. Even this is indecent, but yet not so bad as the quarrels that sometimes take place among fellow-students, and end in blows; and it is an incomparably slighter transgression than an assault upon a person who partakes in some measure of the sanctity of a preceptor.'

We do not find, at least we are not aware of, any hint in Libanius of his having made any classification of his pupils according to their various ages, or degrees of proficiency. Philostratus (De V. S. II. xxi. 3.) mentions, as a peculiarity in the plan of his master, Proclus, that he assigned separate places in his school to the boys and the young men, from which we may infer that the contrary practice prevailed at Athens, as it did at Rome in the days of Quinctilian. But even this arrangement would not have remedied the many inconveniences and mischiefs that must have arisen from collecting the two classes in the same room. The cause which prevented them from being kept apart was one that produced many other still more pernicious effects, and belonged to the essence of the system. The chief business of a school of rhetoric consisted in the delivery of declamations, sometimes by the master as models, sometimes by the scholars as exercises. In either case the speaker desired a large audience, whose approbation was the test and the reward of his success.

We have spoken of the encouragement held out by the Roman government to the cultivation of certain branches of knowledge, but we have still to consider a much more important part of the subject, namely, the natural operation of the state of society, of manners, and opinions, in promoting particular studies. The ordinary course of a liberal education throughout the Roman empire consisted of two stages. The first was the school of the grammarian, whose province it was to interpret or illustrate the best authors, and to form the pronunciation and the language of his scholars; the second was the school of the sophist or rhetorician, who taught, principally in the way already described, the art of speaking; and in this latter school the students appear usually to have spent the whole interval between boyhood

and manhood—the time that with us is occupied in the higher forms of a school and in a university. To understand how so considerable a portion of human life should have been commonly devoted to a pursuit which is almost entirely excluded from modern education, it is necessary to form some conception of the various ways in which the art of speaking might become useful to the possessor, and of the force of the motives that rendered the acquisition of it desirable. Some of these were such as are common to the ancient and the modern world; but others arose out of the peculiar taste and manners of the former. That branch of the legal profession which is exercised in courts of justice, and generally with success proportionate to the power of speaking displayed in it, was not more lucrative, and offered no higher prizes to ambition than it does now. But it was not less productive of honours and emoluments; and analogy inclines us to believe that eloquence, or at least rhetoric, which is the thing we are here considering, formed a more essential ingredient in the qualifications of a successful pleader, during the decline of the Roman empire, than it does anywhere at the present day. A still more superficial acquaintance with law than now suffices for a flourishing advocate, appears to have contented those of antiquity. The toil of raking up precedents out of musty volumes was abandoned even oftener than it is now to some plodding subaltern, and the orator confined himself to the nobler employment of informing and animating the dry and shapeless mass with the breath of his genius. Quinctilian, indeed, (xii. 3.) remonstrates against this practice. He admits that it may sometimes be sufficient to get up the law of a case for the occasion; but he represents the risk which a pleader runs who, having laid up no stock of legal learning, trusts entirely to the temporary supplies he can draw from a prompter, on whose judgment and good faith he is compelled to rely. We know, however, that this risk continued to be run; and the state of the Roman laws for a long time afforded even a better excuse for such rashness than our own. Libanius boasts of having sent out of his school pleaders who, if merit had received due encouragement, would have risen to the top of their profession. He complains of the corruption of the times, which had deprived eloquence of its just weight in the tribunals; and he mentions with indignation the recent good fortune of an illiterate pickle-dealer, (Orat. 65,) who, happening to stray into a court of justice, was seized with the ambition of becoming an advocate himself, and by dint of noise and impudence, had not only gained an immense practice, and amassed

vast riches, but had risen to the honour of pleading in the imperial presence. But the sophist, while he deplores the success of this vulgar fellow, expresses an equal contempt for those who study the laws, and does not scruple to say that this is a pursuit appropriated to dull intellects. (Orat. 4.)

But in other walks of life, opportunities occurred more frequently for the display of rhetorical talents, and they were more generally expected and required than in modern times. No man in a high station could acquit himself decently of his functions without some degree of familiarity with the art of speaking. It was usual for magistrates on entering into office, as well as on other public occasions, to address large assemblies, composed chiefly of intelligent and fastidious hearers. Libanius mentions with pride that one of his scholars, who had been promoted to the government of Lycia, had not only relieved the distress of the province by his wise and upright administration, but had adorned the festivals of all its cities by his eloquence, so that the Lycian sophists improved themselves in their art by his example. (Orat. 65.) Nor ought it to be overlooked, when we are considering a period in which Christianity was basking in the sunshine of worldly prosperity, and was continually increasing its means of holding out the most powerful attractions to selfish ambition, that the high offices of the church called for the exercise of the rhetorical faculty still more frequently, and more imperatively, than those of the state. It was possible, indeed, at this time to acquire perhaps a wider renown, certainly a greater share of the deepest veneration, by a very different process—by renouncing, in an extraordinary degree, the gift of speech, and burying language and thought in the silence of a desert. But the more lucrative and brilliant stations, those which conferred immediately wealth and dignity and power, could scarcely be attained or becomingly filled without some command of elocution. This was more especially indispensable in the great cities, the posts most coveted, where the audiences were most refined, and were too prone to pay an improper degree of attention to the style and delivery of discourses designed for their spiritual edification, though embellished, in compliance with their weakness, with the graces of profane rhetoric; for these graces were borrowed from the Pagan schools. The most eloquent of the Greek fathers learnt either with or from Libanius, and formed their sacred compositions on the same fashionable model. St. Basil, indeed, after his elevation to the archiepiscopal throne of Cæsarea, professes to have dropped those literary accomplishments which he had acquired at Athens, and which his

friend Libanius was assiduously cultivating on *his* throne at Antioch. 'Our converse,' he piously observes, (Epis. 1584,) 'is with Moses and Elias, and other holy men, who speak to us in a barbarous language, and we repeat the lessons we derive from them, which are true in their matter, though rude in their expression.' But the sophist replies, not with more politeness than justice,—'Hold fast to the books which you praise, as excellent in their sense though falling short in their style; but the studies which are still mine and were once yours, have struck roots in you that will abide by you as long as you live, even though you should neglect to water them.'

We will remark, by the way, a feature of the times not without importance, as a symptom and as a cause of the attention paid to rhetoric,—the custom that prevailed universally among hearers of every class, of expressing their approbation of a public performance by vociferous applause. The boy who recited an ingenious exercise among his schoolfellows was cheered with their shouts and plaudits, as an unsuccessful attempt was sometimes received with hisses: the master himself, who declaimed for the instruction of his scholars, measured the depth of the impression he had made on them by the energy of their acclamations. The magistrate who addressed the people in public was disappointed if he did not earn a similar testimony of their favourable judgment. The oration of Libanius *to Timocrates* (41) unfolds some curious particulars connected with this practice. We learn from it that there was at Antioch, in the time of Libanius, a band of men consisting, it is said, of about four hundred of the vilest of the populace, who exerted an absolute control over the public voice in the theatres. They were in the pay of some of the actors, whom they served by hailing their performances with clamorous applause, to the great annoyance of the disinterested spectators. So far we seem to be reading a description of what is constantly taking place, only not on quite so large a scale, in our own day: but it appears that these mercenaries were not content with this market for their hands and lungs, and that they found customers of a different class;—the magistrates themselves were reduced to depend upon them, and to bargain with them for their support. Libanius addresses himself to a magistrate who had returned from the theatre, disappointed by the cold and silent reception he had met with on his first appearing there in his new office, and consoles him by exposing the manœuvres of the hirelings. 'When the new magistrate is expected at the theatre, they concert their mea-

sures together; and, while he is present, keep a dead silence themselves and force the rest of the audience to maintain it also. The magistrate is surprised and confused: he reddens, turns pale again, affects to converse with his friends, attempts to rouse the feelings of the public by addressing them through the herald. Their silence is unrelenting, and he finally resorts to the expedient of sending privately for the leaders of the band, and coming into their terms.' From the lecture-room and the theatre the habit of indulging in boisterous demonstrations of delight was carried even into the churches. The custom of applauding sermons in the same manner as theatrical exhibitions, which at present, so far as we know, exists in no other country of Europe but Portugal, (where it might be witnessed, at least, a few years ago,) crept very early into the religious assemblies of the Christians. One of two remarkable instances afforded by ecclesiastical history is the better suited to our present purpose, as it occurred at Antioch: it was one of the charges made against Paul of Samosata, when bishop of that city, that he used the gesticulations of a sophist in the pulpit, striking his thigh and stamping the floor; and that he reviled and insulted that part of his congregation which would not join the men and women of his faction, who applauded his discourses as in the theatres, by waving of handkerchiefs—by shouts and gestures (Euseb. vii. 30). This was in the third century: the other instance belongs to the fifth, and is accidentally mentioned by the ecclesiastical historian (Socrates, vii. 13) in describing the tumult at Alexandria, which ended with the tragedy of Hypatia (See Gibbon, Chap. xlvii.). The schoolmaster, Hierax (See Milman's History of the Jews, vol. iii. p. 197), who was the immediate occasion of the rupture between the prefect Orestes and the archbishop St. Cyril, had before made himself conspicuous by his activity in exciting plaudits at the archbishop's sermons.

Finally the profession of a sophist itself opened very inviting prospects to ambition; it rewarded the successful artist with a very ample measure of wealth, honours, and reputation. Its resources were not confined to the emoluments of a flourishing school, nor even to the extraordinary donations that a distinguished professor might receive from the city in which he resided. The amount of these indeed was often very considerable. The rhetorician who filled the throne at Athens might, if he was so inclined, keep up high state, which was thought to accord well with his dignity. Thus we read of one (Philostratus 2. 10. 2), that his dress was costly, that he wore precious stones, and came down to

his lectures in a chariot, of which the reins were studded with silver: of another, at Smyrna, that he was in the habit of travelling with a great train of baggage, servants, dogs, and horses. The sophists, indeed, were sometimes men of noble family, and of good private fortunes, who did honour to the profession by exercising it freely. But besides these ordinary sources of wealth there were others arising from the passionate fondness for rhetoric, which survived all other literary tastes among the Greeks, and was shared by the Romans. An itinerant sophist, who possessed the talent of extemporaneous speaking, was always sure of drawing an audience, who attended his performance with feelings of interest not less intense than those that are excited in a polished capital of modern Europe by the announcement of a new ballet-dancer. Curiosity was of course heightened when, as often happened, the stranger sent a challenge to the sophist of the place, to declaim upon any subject that might be proposed on the spot. Such a trial of strength was an entertainment which attracted the greatest personages in the state, and even the parallel just suggested will scarcely enable our readers to conceive the transports which exhibitions of this kind are said to have produced; and probably nothing but the performance of an able *improvisatore* can afford an adequate idea of the powers that were frequently displayed in them. A very lively description of such a contest may be found in Philostratus (2. 5. 3). The sophists, however, were not unfrequently called to more important and dignified occupations: they were often chosen by a city or a province as its organs, to represent its grievances or its wants to a magistrate, or to the emperor himself. Several of the most interesting orations of Libanius relate to local abuses and vexations, for which they seek redress. And there were more ways than one in which a rhetorician might obtain entrance at court, and rise to a high place in the emperor's favour: the office of his private secretary was commonly bestowed on a person of this class. Sometimes the emperor himself found occasion to employ the talents of a celebrated sophist in distant missions. Thus the fame of Eustathius induced Constantius to send for him to court, in spite of his adherence to Paganism, and to appoint him one of his ambassadors to Sapor, in the hope that the address and eloquence of the sophist might win from the Persian king some relaxation of the terms on which he had offered peace to the Romans. If we were to believe Eunapius (Vit. Soph. p. 30, Boissonade), Eustathius charmed the barbarian so, that he was on the point of laying aside his tiara, his purple, and his gems, and assuming the cloak of a philo-

sopher. The biographer adds, that the success of the embassy was beyond hope; it was, however, in fact, just what might have been expected from the nature of the means employed, that is, a complete failure.

We have been drawn certainly farther than we intended at first—chiefly by the wish to lay before our readers materials for their judgment rather than opinions of our own—into what may appear a series of digressions from our original subject. The length to which these introductory remarks have insensibly expanded will compel us to compress the remainder into a compass narrower than we meant to have allotted to it, and seemingly, perhaps, out of all proportion to that which has been occupied by the former. We trust, however, that what has been said will serve to prevent the brevity to which we must now confine ourselves from being obscure. We return to the view we have already taken of Athens, as rising, under imperial patronage and the co-operation of favourable circumstances, to a pre-eminence over the other cities of the empire as a seat of education in philosophy and eloquence; and we proceed to consider how far this state of things continued, or had undergone a change, in the fourth century.

The endowment by which M. Aurelius had cherished the four principal Schools of Philosophy did not protect them from the revolutions to which public opinion is always liable, and which are continually shifting the current of human thought to fertilize new tracts, while it leaves systems reared by mighty intellects, and designed by them to be imperishable monuments of their power, and the pride and joy of posterity, solitary and neglected, to moulder away into ruin. In the ensuing centuries the doctrines of the rival sects excited less and less interest, and instead of being cultivated, maintained, and developed, were studied by the few who paid any attention to them, under the feeble impulse of literary curiosity. If any exception is to be made from this remark, it must be in favour of the Platonic Philosophy, one side of which, the poetical, mythical, and mystical, being intimately connected with the prevailing systems of the three first centuries, found many passionate admirers: but this was only the vestibule of the sanctuary into which the votaries of the new theosophy were admitted. The most active and generous spirits of the age, formed by nature to enlighten and adorn mankind, delighted in the boldest flights of speculation, which carried them far beyond space and time and sense, into regions where they could hold uninterrupted converse with the abstractions they had formed for themselves,—could freely indulge in wandering up and down scales of æons, or could vault at once into

the infinite abyss, where primeval mind dwells with eternal silence. The practical wisdom which was brought back into the sublunary sphere from such excursions, corresponded to their lofty range by its exquisite unfitness for the purposes of human life, and its direct tendency to invert the natural and healthy order of society. The passions and appetites were to be subdued, not to the end that the intellect might be rendered a clear and faithful mirror of nature, history, and art, and the body the pliant organ of pure and rational affections, but for the sake of an imaginary communion with an ideal world, in which the objects and relations of the one actually existing were to be completely forgotten; or a triumph was to be obtained over time and space, by removing the obstacles that intercept our view of the distant and the future. It may be easily conceived that men who were accustomed to such trains of thought and fancy, found the speculations of the elder sects tame and dull, and felt little interest in the study of their doctrines. We are unable to say whether the chairs of philosophy founded by M. Aurelius continued to be filled in the fourth century; or whether those who occupied them combined the practice of rhetoric with their nominal and almost obsolete profession; but it is certain that all the celebrated men who are recorded by Eunapius to have cultivated both divine and human learning, that is, both philosophy and rhetoric, at this period, were persons of very different pursuits from those of Plato or Aristotle, Zeno or Epicurus;—they were sages who floated in the air, who were often seen encircled with a glory, who infused life into brute matter, and saw the secrets of the past and the future no less clearly than the objects present to their bodily eyes. The prevailing theosophy and theurgy, which had replaced the metaphysics and ethics of antiquity, were no doubt taught at Athens, but chiefly, perhaps, in connexion with the Eleusinian mysteries, which now attracted all those who still clung to the old faith, by the double charm of secret and proscribed rites. Thus we find that the emperor Julian, after he had made considerable progress in theurgic lore, under the guidance of Maximus at Ephesus, was drawn to Athens by the fame of the Hierophant, from whose instructions he was led to expect some additional knowledge (Eunapius, p. 52).

On the other hand, the Athenian school of rhetoric continued to flourish with unabated or increased reputation. If its rivals in Asia Minor still cultivated in the fourth century the Asiatic or Ionian character on which they had anciently prided themselves, at least they could not vie with Athens in the number of strangers that flocked to it from all parts of the

East. Other schools of considerable note were looked upon as secondary or preparatory, and the students left them, sometimes at an advanced age, to finish their education at Athens. In this respect, and in the great preponderance of the foreign over the native youth, which rendered the former a very distinct though not a legally recognized body, the Athenian school made a near approach to the essential character of a university. Its members were fully conscious of belonging to a separate and an important class, but they wanted a formal bond of union, which might at the same time have served to secure order and discipline among them. The consequence was a state of things which, though certain modern universities may present many points of resemblance, has probably never been exactly paralleled. The seat of the provincial government was Corinth: the inhabitants of Athens and the local magistrates felt too strongly the obvious interest which the city had in the residence of so many strangers, many of whom were of noble and affluent families, to interfere very actively for the purpose of thwarting or controlling them; and the professors themselves had motives by which they were too often swayed, for not only conniving at sallies of youthful impetuosity, but prompting, directly or indirectly, acts of tumultuous violence. Their credit and emoluments depended on the number of their pupils, and the latter conceived their own honour to be concerned in the success and reputation of their respective professors. This led them to form clubs or associations for enlarging, by all the means in their power, the several classes to which they belonged. It appears that, as in the Law School of Bologna, there was an ultramontane and a citramontane university, so at Athens there was an ultramarine and a citramarine party, whose emulation was provoked and urged by national antipathy; and was of course raised to its highest pitch when the professors, whose interests they espoused, were their countrymen.

We shall use the testimony of eye-witnesses to bring the state of the case as clearly as possible before the view of our readers. We will begin with St. Gregory of Nazianzum, who studied at Athens with St. Basil, and, in his funeral panegyric of his friend, introduces a description of the practices that prevailed there, which is the better suited to our purpose, because it was designed for the information of hearers who were not acquainted with the scenes he describes. The history of St. Basil exemplifies one of our preceding remarks. He had first studied at Cæsarea (the Cappadocian), which Gregory extols, in terms that seem to be greatly ex-

aggerated, as a most flourishing and celebrated school. From hence he proceeded to Constantinople, of which the orator speaks no less favourably, as supplying the most consummate sophists and philosophers. But here again we cannot help suspecting him of a partiality that has considerably over-coloured the truth: for he is at direct issue with Libanius, who was, for some time, professor there, and who represents Constantinople as very inferior in this respect even to Nicomedia; and though he was certainly no less prejudiced against the new capital than Gregory was in its favour, he mentions facts and details which entitle him to credit. From Constantinople, however, Basil's insatiable thirst of knowledge is said to have led him to Athens—*the seat of literature*, though, as Gregory observes, it was, in other respects, a residence detrimental to piety; for it is richer, he says, than all the rest of Greece in idols, and it is difficult not to be carried away by the warmth of their advocates. That, in spite of this danger, the Christian youth resorted from remote countries to Athens, must be considered as a decisive proof of its literary pre-eminence. Gregory wishes to show that his friend had attained an extraordinary reputation even as a young student, and thus is led to relate how he had escaped the annoyance to which all who go to study at Athens are subjected on their first arrival. The young men, he says, are almost all mad for their sophists. He illustrates this madness by the passionate transports of the factions in the circus on behalf of their favourites. Their ambition, he proceeds, is to swell their own numbers, and thus to enrich the sophist, to whom they are devoted; and this rage is carried to such a length, that towns, roads, harbours, passes, plains, promontories, every part of Attica and of Greece, are beset by them, and the inhabitants themselves are engaged in the interest of some or other of the parties. A young man has no sooner arrived than he is made prisoner, half in jest, half in earnest, by the faction into whose hands he may chance to fall. They carry him to the house of one of their friends; try his temper and his wit by some half serious, half jocular threats; and finally lead him in solemn procession to the bath, where, after a sham struggle, he is admitted, and is then pronounced free of their order.

Libanius, in the autobiography which he has given, in the shape of a discourse on his fortune, discloses some further particulars relating to this custom. He had prosecuted his rhetorical studies at Antioch with great ardour to the age of twenty. He was then inflamed, by the accounts he heard of Athens and its school, with the desire of visiting it. He

accordingly travelled by land to Constantinople, where he expected, through the interest of a friend, to obtain the use of the imperial post for the remainder of his journey. Being disappointed in this hope, he embarked in a vessel bound for Attica. On his arrival at Athens he was not so fortunate as Basil; for though he had previously fixed on the sophist whom he meant to attend, he was seized on entering the city by a pressgang in the service of another: from this he was rescued by one in a different interest, though still not that of the man he had chosen. These kept him in close custody till they had extorted from him an oath that he would enter their school. He conceived a very low opinion of the sophist whom he was thus compelled to hear; and pleaded ill health as an excuse for not taking his part in the noisy plaudits with which his comrades were wont to greet their master's performances. This constraint, he observes, might appear, at first sight, a mark of the malignity of his fortune; but it was really a boon which she had vouchsafed to him in her kindness. He solves the enigma by pointing out the happy consequences of this seemingly untoward accident. 'From a boy,' he says, 'I had heard of the wars that were waged by the bands (χοροὶ) in the midst of Athens, with stones and clubs, and still more dangerous weapons; of the wounds that were exchanged; and of the law proceedings that ensued. I admired the pious courage of the youths who thus devoted themselves in the cause of their teachers, and I hoped that I might one day myself reap similar laurels. I saw nothing but what was enviable in the life of a captain of a band; in running to Piræus and Sunium, and other ports, to press novices on their landing; in journies to the tribunal at Corinth, to answer for such piracies; in keeping up the spirits of my party by a series of entertainments, which would have involved me in debt. But Fortune saved me from this splendid ruin, by chaining me to the throne of a master for whom I felt no respect or concern, and still less any inclination to run risks in his cause; while my comrades did not venture to force me to join them in their expeditions and conflicts, lest I should make their violence a pretext for breaking my oath and renouncing the school.'

He remained five years in this captivity, when an accident happened which procured for him what he everywhere speaks of as the highest honour a rhetorician could attain to—that of being nominated to fill one of the chairs at Athens. A new governor had come into office, who thought it his duty to repress the disorders which agitated that city. He determined to dismiss the sophists who, he conceived, had encou-

raged the youths in their excesses, and to fill their places with others. Libanius was one among the objects of his choice, and experienced all the envy and ill will which this distinction drew with it, though without any immediate advantage, as the proconsul afterwards relaxed his severity, and restored the disgraced professors to their chairs.

It is clear that the transaction here alluded to in a cursory manner by Libanius, is the same as one which is more minutely described by Eunapius in his Life of Julian. It must be observed that Eunapius himself was familiar with these scenes. He had come to Athens at the age of sixteen, and he relates that a great company of students were passengers in the same vessel. When it came to anchor in Piræus, Eunapius was suffering under a violent fever caught during the voyage. It was night time, and the master of the ship, who was an old friend of the sophist Proæresius, and who knew that if he staid till morning, his passengers would be intercepted by some of the parties who were constantly on the look-out for arrivals, instantly marched them up to the city, though Eunapius was unable to walk, and they were obliged to carry him on their shoulders. They, however, reached the house of the sophist in safety, and were welcomed with the delight that was naturally caused by so important an accession, at a time when, as the writer observes, wars were waged about one or two youths. Proæresius immediately sent for some of his relatives, who undertook to receive the new comers in their houses, and to initiate them by the ceremony of the bath.

In his Life of Julian, the master of Proæresius, and the most celebrated sophist of his day, Eunapius records the occasion of the incident mentioned by Libanius. Julian was a native of Cappadocia, and had the strength of the ultramarine party on his side. His chief rival, Apsines, was a Lacedæmonian, who was supported by a band of his robust countrymen. Julian had a theatre of polished marble in his house; and the biographer remarks, that Athens was at this period in such a state of ferment, that none of the sophists ventured to exhibit in any public place, but received their pupils in private theatres. It fell out, that during these civil broils, the followers of the two rivals came to blows in the streets, and the Cappadocians were roughly handled by the Lacedæmonians. But the latter, fearing that their antagonists might call in the arm of the law to avenge their defeat, cunningly anticipated them, and charged them with the riot. The Roman governor, a stern man, ordered Julian himself, as well as his scholars, to be apprehended, and brought in

chains to Corinth. But at the trial, if we might believe the report which Eunapius gives on the authority of an eye witness, Proæresius, who was one of the accused, having obtained leave to defend his master and comrades, so worked on the proconsul by his eloquence, that he started from his seat, and applauded like a schoolboy. The charge was dismissed, the prisoners released, and the complainants were threatened, or (as the words may intimate) actually chastised with Spartan discipline.

We must here break off, and conclude by requesting those of our readers who have the means, to look into Schlosser's *Archiv für Geschichte und Literatur*, (Erster Band, s. 217,) where they will find this subject treated, though, from a somewhat different point of view, with that agreeable and judicious writer's usual easy flow of style, and well-digested learning.

ON MATHEMATICAL INSTRUCTION.

It is matter of general remark that mathematical studies do not yield that pleasure to the young, which the more intelligent and well inclined among them, derive from every other part of their education. If the opinions of a number of youths could be collected, at the period when their education is just completed, it would be found that, while nearly all profess to have derived pleasure from their classical pursuits, the very name of mathematics is an emblem of drudgery and annoyance. In saying this we are not speaking of the Universities, in which the choice of studies is so far left to the taste of each individual, that no one can have those feelings against any particular study, which arise from the remembrance of its having been forced upon them. Our remarks apply to the hundreds of schools with which the country is studded, where, in fact, the great majority of the educated portion of the community receive the knowledge which entitles them to take that title, in most of which something is taught under the name of mathematics, bearing much the same likeness to an exercise of reason that a table of logarithms does to Locke on the Understanding. Honourable exceptions are arising from day to day; and those who guide the remainder will, if they are wise, look out in time, and see with what favourable eyes the world regards any well-regulated attempt to improve the system. Why are so many proprietary schools erected? The reason is, that parents, who have neither time to choose, nor knowledge to guide them in the

choice of a place of instruction for their children, find it easier to found a school, and make it good, than run the doubtful chance of placing their sons where they may learn nothing to any purpose. We propose in this article to make some remarks on the manner of teaching mathematics as it is, and as it ought to be.

A very erroneous idea prevails with regard to the object in view, in making mathematical studies a part of education. There are places in abundance where book-keeping is the great end of arithmetic, land-surveying and navigation of geometry and trigonometry. In some, a higher notion is cultivated; and in mechanics, astronomy, &c., is placed the ultimate use of such studies. These are all of the highest utility; and were they the sole end of mathematical learning, this last would well deserve to stand high among the branches of knowledge which have advanced civilization; but were this all, it must descend from the rank it holds in education. It is no sufficient argument for the introduction of such pursuits that their practical applications are of the highest utility to the public, and profitable to those who adopt them as a profession. The same holds of law, physic, or architecture, which, nevertheless, find no place among the studies of the young. It is considered enough, that the lawyer should commence his legal pursuits when his education in other respects is completed; and so would it be with him whose calling requires a knowledge of mathematics, were it not that an important end is gained by their cultivation, which is quite independent of their practical utility,—viz. the exercise of the reasoning powers. It is well known, that mathematical demonstration has acquired the name of certain, on account of the simplicity and perfect admissibility of the principles assumed, and the strictly logical nature of the steps by which conclusions are deduced from these principles. The results are also, in many cases, matters of common experience, by the application of which the reasoning may be confirmed. The same species of logic is used in all inquiries after truth; but the broad distinction between mathematics and the rest is, that the data or assumptions of the first are few, undeniable and known to the student from the beginning; no question can be raised upon them which in any way affects the disposition to admit them, and they require no induction from facts which can be disputed. The student can then perceive more clearly in these studies, than in any others, what is reasoning, and what is hypothesis; he sails along a coast, of which all the points are well laid down, that he may be able

to use the experience there gained, in future voyages of discovery.

The actual quantity of mathematics acquired by the generality of individuals is therefore of little importance, when compared with the manner in which it has been studied, at least as far as the great end, the improvement of the reasoning powers, is concerned. On looking at the question in all its lights, we might be tempted to say, let every one learn much and well; well, in order that the habits of mind acquired may be such as to act beneficially on other pursuits; much, in order to apply the results to mechanics, astronomy, optics, and many other ennobling sciences which can never be completely understood without them. But considering that the great majority of youths have not time to devote both to the subject and its applications, and cannot therefore hope to be able to attend scientifically to the different branches of natural philosophy, the next point is to secure a habit of reasoning in preference to the knowledge of a host of results. The latter is preferred in most of our schools, and for this reason, that ninety-nine parents out of a hundred are more likely to ask their sons, How many books of Euclid have you read? How far have you got on in algebra? than, In what manner have you studied? Do you understand what you have read? It is common enough for a boy to have acquired arithmetic by rule, six books of Euclid by rote, the greater part of Bonnycastle's Algebra by rule, and plane trigonometry in the same way, with just enough of the use of a table of logarithms to secure him against working any question with correctness. All this, if well learnt, would constitute a respectable portion of mathematical knowledge, and would enable an intelligent pupil, when the day arrives in which he begins to see the value of knowledge, to proceed in his studies without the aid of a teacher. But if we proceed to examine the manner in which this is gained, we shall in far too many cases establish the truth of the following sketch, which we believe to be a fair representation of the manner in which mathematical science was taught in our time, and it is to be feared is still taught to a great majority of those who commence this study.

The child learns from his nurse or his mother our method of representing numbers, by a plan of teaching which makes two symbols such as 16 and 25 nearly as independent of one other in his head as the ideas attached to the words 'book' and 'steam-engine.' When he arrives at school he is taught to *say* the table of numeration, and then proceeds

through a number of rules, that is, directions to put figures together written in a book, with names at the head of them such as multiplication, division, &c., which if he understand, it is well, but if not, nobody cares. Some of these rules are so unintelligible, that were it not for an example at length which usually accompanies them, they would be equivalent to as much Hebrew. It is a fact that in some treatises not yet out of date, the inverse rule of three is defined as the rule where 'less requires more, and more requires less.' As to the reasons for the rules, the pupil cannot trouble his head (to use a common term for that much avoided operation, thinking) about them, not knowing whether there are any at all, or whether the rules themselves came from the moon, or are a constituent part of that wisdom of our ancestors about which he sometimes hears. Should there be any natural defect in his mind, owing to which he finds it difficult to produce a correct result, knowing neither what he is to do, nor how to do it, there are several approved methods of proceeding. The best of these, unfortunately now somewhat exploded, is a flogging; which works on a principle recommended by physicians, of curing a disorder in a part which cannot be got at, by producing the same in another which can. Next to this comes the method of keeping the patient from all recreation, until he has done what is required of him, it being considered the same thing in the end, whether he cannot work for want of means, or will not from want of application. It has been suggested to teach the principles involved in the rules, and thus to render the pupil their master instead of their slave, but to this plan, independently of its being an innovation, there are grave objections. Many instructors, if placed in the temple of truth, would be obliged to ask, 'How shall I teach what I do not know?' Others would say, 'All I have to do at present is to look at the pupil's work, and compare it with the key which I have, locked up in my desk—should I begin teaching principles and all that, there would be no end of troublesome questions.' In this last idea is much of the secret of the system. It works well, whatever the pupils may do, because, like the grammar and dictionary instruction in Latin and Greek, it saves the *teacher* a world of trouble. We remember to have seen a rule-book of algebra which recommended itself to the masters, on the ground of saving them from being 'pestered with questions.' But to return—the *sums* as they are called, when, after many a correction, they coincide with the masters' key, are carefully copied into a book, each with Qu. at the beginning and Ans. at the end, with red ink lines in the places which taste points

out, and this goes home at the vacation with the young gentleman, a triumphant proof of his progress, shewing the delighted parent that his hope is *in* 'compound multiplication,' or if he be a genius *in* 'discount' or 'barter.' This has been done in three years (we speak from knowledge), which, considering that the last rules consist in dividing a sum of money into parts, and taking some of those parts, is not such bad progress. In this way is the pupil driven through some dozens of commercial rules, reducible on principle to three at most, and these unconnected, ill arranged, and in nine cases out of ten utterly useless to the person who knows them. Fractions are presented, both common and decimal, but so disguised that not the least likeness is apparent. Hence the rules must be repeated in such case, and thus in Bonnycastle's Arithmetic appear three distinct rules headed as follows:—

Rule of Three.
Rule of Three in Fractions.
Rule of Three in Decimals.

These are applied, as before, mostly to commercial affairs, which we imagine are considered as forming a necessary preliminary to geometry, since the road to the Pons Asinorum is always made to lie through Agio and Banco, Interest and Discount, and the like. The final consequence is, that the pupil having worked unmeaning and useless questions by slatesfull for some four or five years, comes out master of a few methods, provided he knows what rule a question falls under, which is not always sure to be the case, for in all probability, the first application which it is necessary he should make will be a combination of more rules than one, and, therefore, not exactly to be solved by the rule in his book. And here he is fairly aground; for not having any principles, the necessity of one step different from that laid down in the rule is a total extinguisher upon the success of his efforts. So much for the system of arithmetic, most appropriately called *cyphering*, since intellect goes for nothing throughout.

After the excellent preparation above described, such of the pupils as retain any power of comprehension, or have not been utterly bewildered in the labyrinths of cwts. and lbs. are made to commence geometry, or as it is called *mathematics*. Here we must observe, in justice to the instructors, that they have not degraded the latter term by applying it to their figure-work, miscalled arithmetic. And here the form of demonstration is adopted. We may ask, how comes it

that reasoning, utterly banished from arithmetic and algebra, preserved its place as an essential of geometry? We suspect it arose from the fact of the treatise of Euclid being found already established, and the disinclination to overturn any institution being so great, that this work preserved its place in spite of its truth and beauty. Had it not been for this, we suspect that geometry would have consisted in calculating the area of squares and triangles—in fact, that it would have been all contained in one of our practical works on mensuration. Even as it is, there are not wanting some contrivances to prevent the perfect mastery of reasoning. One is, to give the pupil a case of instruments, and let him spend his time in drawing figures, taking care that these shall consist of broad ink lines, to prevent his eye and hand from acquiring the incidental advantage of real accuracy. The propositions are also said by rote, for the convenience of those who find their memory in a better state than their reason. Many a youth who can *say* the first book of Euclid cannot say whether it would or would not do equally well to reverse the order of all the propositions. Great attention is paid to the phraseology of the book. The never-ending reiteration of Simson's Euclid is the very cream of the matter. But the prime feature of the system, though now somewhat obliterated, was the necessity for recollecting the numbers of all the propositions; for it could clearly be of no advantage to know, that three angles of a triangle are equal to two right angles, unless it was also known that this is the thirty-second of the first book. There seems to be a magic in numbers, which no one can withstand, from Leibnitz, who proposed to convert the king of China to Christianity, by means of the binary arithmetic, to the mathematical master of a country school, who measures his pupils' conviction of geometrical truths by their power of recollecting the order in which they come. In addition, it must be observed, that the more difficult parts of the system are, like the rest, said or sung after the manner of school-boys, without the least elucidation. The fifth book, which, though defended by many on account of its superior rigour, is pretty generally admitted to be very difficult, if not absolutely unintelligible to the young, shares the same fate. If geometry is at all connected with algebra, it is by means of false analogies and such jargon as that the algebraical theorem $(a + b)^2 = a^2 + 2\,a\,b + b^2$ proves the fourth proposition of the second book and why? because a^2 or *a multiplied by a* is *called* the square of a and $a\,b$ the *rectangle* of a and b, &c.! Under these circumstances, the inquisitors who condemned Galileo would not much object to

our geometry, seeing that such reasoning might be made as effectual in proving the stability of the earth, as the arguments of that great man were in overturning it.

We now come to the method of teaching algebra, with regard to which, all that has been already asserted in speaking of arithmetic, holds to its full extent. But as the former subject holds a higher rank than the latter, it would be undignified not to teach it with some defects peculiarly its own. If arithmetic were unintelligible, algebra is made to render that obscure which before was easy. The latter may be divided into two parts; the first containing merely universal arithmetic, that is, calculations leading to theorems which are equally true for classes of numbers. To investigate these, universal numbers are introduced, represented by letters, for which, when the process is finished, any numbers may be substituted which are consistent with the conditions of the problem. The second and more extensive branch takes its rise in a peculiarity which distinguishes algebra from all other sciences, *viz.* that when a problem is impossible, or admits an infinite number of solutions, or has been misunderstood in applying algebraical reasoning, the solution itself, instead of being rational and consistent, points out the error by appearing in one of the forms $-a$ $\sqrt{-a}$ $\frac{a}{0}$ $\frac{0}{0}$ and others which the algebraist will immediately recognise. These symbols are contradictory and absurd in their nature, yet, by carefully observing the problems in which they occur, it has been made apparent, that each of them belongs to one particular species of mistake and to no others. Hence the solution itself points out the error and the mode of correcting it, and these symbols take their place by the side of those in which no contradiction occurs, and can be used with certainty, and, by those who know their meaning, without confusion of ideas. In employing them it is sometimes necessary to extend the signification of common terms to avoid separating analogous cases and multiplying definitions. It is plain that this refined branch of the science should not be the first taught, but that the pupil should be led, in the track of invention, to its several parts, so as to arrive at each at the precise moment when he can understand its origin and use. A contrary course will ensure years of travelling in the dark, besides the certainty of accustoming the young mind to implicit belief in apparently contradictory propositions. But as if this were to be desired, we find the most elementary parts of algebra crowded with numbers which are to be subtracted from nothing, the results of which are to be added

to and multiplied by similar numbers, for in no other sense can the pupil in that stage of his progress interpret the symbols which are put before him. This is on the supposition that he attempts to interpret them at all, about which no great concern is manifested. Thus, in Bonnycastle's Algebra (the school abridgment) we find the following definition:

"— *Minus*, the sign of subtraction, signifies that the latter of the two quantities *between which* it is placed, must be subtracted from the former." Six pages do not elapse, before we find the pupil directed to add $+ 3\,x\,y$ to $- 2\,x$.

It may be said, that pupils raise no objections. This is the most fatal argument that could be adduced. We know well that pupils always receive implicitly what their masters tell them, and why is it that they are led to the study of Mathematics? Precisely that they may learn to raise objections, and how to raise them in the proper place, when false logic and absurd definitions make objections desirable. To make him turn a mill is not the way to restore sight to a blind horse, nor will a routine of unintelligible or contradictory propositions develop the powers of the mind.

As in arithmetic, so in algebra, there is no reasoning, but all is rule and work. Nay, even the instructor himself is not supposed to possess this faculty, since to all the works of algebra, a key is published, containing literatim the solutions of all the questions, simple and otherwise, and it is well known that no similar work will succeed without such an accompaniment. In the key to Bonnycastle's Algebra we find $a-x$ multiplied at length by itself, for fear the instructor should slip; also the solutions of the equation $4-9x=14-11x$, and many other such.

In answer to a defence sometimes set up, that the system is *practical*, we observe that much of what is done has no reference to any practical end whatever. The great body of the algebraical work of a school consists in questions of multiplication and division which never occur in practice—above all, in the solution of certain conundrums called problems producing equations, of the *practical* nature of which the reader shall judge from the following specimens extracted from Bonnycastle's Algebra.

'A person being asked the hour answered that it was between five and six and the hour and minute hands were together. What was the time?'

'A post is $\frac{1}{4}$ in the mud, $\frac{1}{3}$ in the water, and 10 feet above the water; what is its whole length?'

'A person has two horses and a saddle worth 50*l.*; now if the

saddle be put on the back of the first horse it will make his value double that of the second, but if it be put on the back of the second it will make his value triple that of the first; what is the value of each horse?'

Now if all this be meant for improvement in theory, no one will deny that the reasons of all the rules should be previously understood; but if they be practical questions, we need only say that people have more pertinent methods of answering the question 'What's o'clock?' that no one concerns himself about the proportion in what a post is shared between wind, water, and mud; and that the Newmarket gentry have a better way of determining the value of their horses than by involving them, saddles and all, in a simple equation.

Such is a general outline of a course of elementary mathematics which was universal, and is still too general. We do not mean to charge every place of education with every one of these absurdities. It would be monstrous to suppose that, however universal the prejudice may be against reasoning, all should have adopted exactly the same method of keeping it out of the way of boys. We proceed to offer some suggestions as to the manner in which this system should be improved, in doing which, we cannot assume the tone of certainty in which we have hitherto proceeded. All that has been stated hitherto is notorious fact; we now come from matter of evidence to questions of opinion, knowing that it is more easy to pull down than set up, though feeling convinced that the following methods will be found more profitable than those which we have described.

It is useless to present reasoning in any shape until the language used is perfectly familiar. No one can learn new words and comprehend new combinations of words at the same time. Hence a perfect acquaintance with the English sentence is the first thing to be taught. In this knowledge boys are usually deficient. They know, it is true, how to name each part of speech; but they have no acquaintance with that more general part of grammar which is the foundation of the forms of logic. As an example, no mistake is more common than concluding the converse of a proposition to be the same thing as the proposition itself in every case where the terms are new or complicated. Thus in commencing geometry they suppose that 'all equilateral triangles are equiangular,' proves that all equiangular triangles are equilateral. These errors should be guarded against beforehand, by exercising the pupil in simple deductions, such as are to be found in every syllogism, taking care that all the terms

used have reference to objects with which they are familiar. It should be illustrated to them that the truth of an argument depends on two distinct considerations, the truth of the premises, and the manner in which the conclusion is deduced from them. They should be made to see the difference between a fact and a deduction from two or more, and also that good reasoning may be instituted upon data which are imaginary, such as the definition of a point and a line in Euclid. It is much to be regretted that no book exists in our language which can be recommended to children as a direct exercise of thought on subjects with which they are familiar. He who shall supply this desideratum will deserve more than the present age will be willing to allow, but may safely trust his fame to succeeding generations. For want of such a previous exercise the boy has to contend with two difficulties at once, new things and new methods; and education is not what it should be, a search after that which is not known, by the light of that which is. We proceed to the study of arithmetic.

The method of numeration should be clearly explained and illustrated by reference to other systems besides the decimal. By the use of counters or any similar mechanical means, the pupil would readily perceive the use and advantage of giving to figures a local value. The explanation of the four principal rules would then be easy, but in learning them for the first time the pupil should not be allowed to make use of the abbreviations which will afterwards be convenient for practice, and which all consist in the omission of cyphers. The arithmetic of concrete quantity would furnish abundant illustration of these rules, since the principles of all parts of the science are, the same. The rule for finding the greatest common measure of two numbers will supply an example of logical argument, which should be repeated on several distinct examples. In fact the learner should accustom himself to apply to every case those principles of reasoning which in algebra are generalized by the application of universal symbols for numbers. He will thus smooth the road to the latter science, which will present only one new feature at first. In teaching fractions, a perfectly correct notion of their meaning should be given, illustrated by examples taken from concrete quantities. Distinct things should not be confounded because they have the same names. The multiplication and division of fractions is an example. Strictly speaking, the definitions given of these words can apply only to whole numbers, or to a whole number and a

fraction; the name is extended *after* that operation is discovered, which it will be necessary to substitute when fractions take the place of whole numbers in a problem, and not till then, should the student be allowed to use the terms as applied to both sorts of quantity. The transition to decimal fractions is simple and obvious; but the pupil, before he is permitted to change the notation, should be accustomed to work questions contained in decimal fractions expressed in the common way of representing all fractions. The reduction of any fraction to a decimal will lead to the notion of what is called a circulating decimal, which is all that the pupil requires, as the rules may very safely be deferred until he understands the nature of a geometric series.

The commercial rules are simple applications of the very first principles. They may be introduced as examples of the others, and thus many long and distinct processes found in all the books will be reduced to two or three. We have not space to enter into further detail; the following remarks will close this part of the subject.

The object of the master ought to be to make his pupil understand the process before him. The latter ought therefore to be questioned on every part of his work, and encouraged to mention all the difficulties which have occurred to him. Above all, the boy ought never to be suffered to imagine that he is stupid, because he does not immediately see what is put before him. Schoolmasters do not sufficiently bear in mind, that their pupils are learning to use faculties, with regard to which, were it not for instruction, all would be nearly on a level. To discourage a beginner, by making him fancy himself beneath the rest of his species, is the surest way of losing time and trouble. That inattention or negligence should meet with reproof is undeniable, but this should not come in such a form as to dishearten the well disposed, or to give the indifferent pupil an excuse for making no progress, by laying the blame on his faculties, and saying he has no head for arithmetic.

Numerical exactness is of the utmost importance, and will be sooner arrived at by the pupil who understands the principles, than by any other. The greatest difficulty which boys find in attaining it, arises from the custom of writing all the figures on a slate, on which (since beginners in arithmetic rarely write well or evenly) the various columns of figures are mixed, and slant in every possible way. Why should not the young calculator employ the same method as is frequently used by the older one, of writing on paper ruled into small

squares, one for each figure. Let this be tried, and we will answer for a much better average rate of correctness. As soon as the principle of each rule is really understood, skeleton forms might be used with advantage, by which the pupil might be required to abide.

The study of geometry should, in our opinion, not be deferred one moment later than is absolutely necessary. Many of the names here are new, and the beginner should be made very familiar with them, before he encounters the difficulties of a demonstration. This might be attained, by making him previously acquainted with the leading facts of the first three books of Euclid. It is easy to give ocular demonstration of them all, and this, while it fixes the terms in the memory, will excite curiosity, and give an idea of the utility of the science. Much depends on the manner in which a study is introduced, and the commencement of Euclid's Elements is not calculated to afford a favourable idea. It consists of multitudes of definitions and axioms, some of which are far from self-evident, and begins with three troublesome propositions, showing that from the greater of two lines a part may be cut off equal to the less. This may be very necessary to the received standard of geometrical rigour, but the beginner cannot enter into this refinement. And in fact, the order of the propositions is not necessary to correct reasoning. This consists in forming the conclusions rightly from the premises, no matter what these last may be. It would not be contrary to good logic, to assume the whole of the first book of Euclid, and from it to prove the second, provided that afterwards the first book were proved, without the necessity of taking for granted any proposition in the second. The argument, or collection of arguments, would then stand thus:

If the first book be true, the second is true.
But the first book is true.
Therefore the second is true.

The order in which the premises come, does not affect the soundness of the conclusion, and provided the pupil understands, that the conclusion depends equally on the premises and the reasoning grounded upon them, which are two distinct things, an error in one not necessarily affecting the other, he is perfectly safe, and takes a view of the process of reasoning not generally given to the young. We should then recommend the following principles in teaching geometry:—

Never to state a definition, without giving ocular demonstration, of one or more facts connected with the term employed.

To defer every axiom, until that point is arrived at, where it becomes necessary.

To impress upon the mind of the pupil, that the reasoning is not affected by the assumption of an axiom to be proved afterwards, provided the proof of it is independent of the proposition which it was used in proving, and its consequences.

To accustom the beginner to retrace his steps, and going backwards from any proposition, to continue the chain, until he arrives at the point which he set out by assuming.

To supply a proof that 'all right angles are equal,' and to deduce the axiom on which Euclid grounds the theory of parallels, from this more simple and obvious one, viz. 'through a given point, not more than one parallel can be drawn to a given straight line.'

To count the second and third proposition of Euclid among the axioms.

To omit those propositions which are not subsequently useful, among which may be reckoned many in the second book, and all in the fourth.

In order to accustom the pupil to correct statement of propositions, he should be made to write all that he reads. But here is a probability that he will trust entirely to the book. This may be prevented by requiring him to use numerals instead of letters throughout, and to arrange the whole in the following manner. Let a sheet of paper have two vertical columns, ruled on the left, and let the whole enunciation, construction, and demonstration of the problem be divided into distinct paragraphs, each containing only one assertion. Number these paragraphs in the first ruled column, and in the second, opposite to each paragraph, enter the numbers of the preceding ones from which it follows. Where a previous proposition, or an axiom is required, write its enunciation at the end, with a letter before it, and enter that letter opposite to the paragraph in which it is assumed. If the pupil does this correctly, the instructor may be well assured that he understands the proposition.

In the application of algebraical symbols to geometry, misconceptions usually prevail, which are countenanced by the looseness of expression of many elementary works. They are mostly founded upon the analogy existing between the algebraical expression $a \times a$, or a^2, called a square, and the geometrical square described upon the line which contains a units. Against this confusion of terms the teacher must be on his guard, and should carefully avoid that symbolical

notation recommended in some books, by which $A B^2$ is made to stand for the square described on $A B$. If a short symbol for this be used it might be $\boxed{A B}$, and the necessity of proving that the number of $\boxed{1}$ is contained in $\boxed{a}$ is $a \times a$, would not be concealed under a *petitio principii.*

With regard to the fifth book of the Elements, we recommend the teacher to substitute for it the common arithmetical notions of proportion. Admitting that this is not so exact as the method of Euclid, still, a less rigorous but intelligible process, is better than a perfect method, which cannot be understood by the great majority of learners. The sixth book would thus become perfectly intelligible.

It would much benefit the pupil if solid geometry were introduced at a more early period. There is nothing in the elementary propositions which requires more than the first book of Euclid; and by a judicious use of the *real* figures instead of perspective drawings, the subject might be amazingly simplified.

We now come to the subject of algebra, regretting that the limits of this article will not permit us to discuss the subject upon the scale which it deserves. The great drawback to the proper attainment of this science is the miserable previous instruction in arithmetic. When this defect is remedied, and not till then, can we expect any better results. The four primary rules are, in principle, only extensions of those of arithmetic, though, taught as they are, very little resemblance appears. It is the practice also, not to let the pupil proceed to the principles of equations, until he can work questions in all the previous rules, of a nature which very rarely occur in practice. To the unintelligible way in which the negative sign is used, we have already alluded. We proceed to explain our views as to the manner of proceeding.

The new symbols of algebra should not be all explained to the student at once. He should be led from the full to the abridged notation, in the same manner as those were, who first adopted the latter. For example, at this period he should use *aa*, *aaa*, &c., and not a^2 a^3, and should continue to do this until there is no fear of that confusion of $2a$ and a^2, $3a$ and a^3, &c., which perpetually occurs. Whenever any new symbol is introduced, not a step should be made until it has been rendered familiar by finding its arithmetical value in particular cases. This indeed is the first exercise; algebraical expressions increasing in complexity are given, and also

certain values for the letters, and the student is left to find the corresponding arithmetical value of the expression. Whenever a negative result occurs it should be thrown aside as an impossibility, the pupil being told at the same time that use will be afterwards made of such expressions, when he can understand what they mean in the solution of a problem. The leading principles of the solution of equations of the first degree might then be easily established, and applied to some numerical equations. The four rules should follow, the principles being previously explained and all negative results avoided. The student is then in possession of the means of solving an equation of the first degree in which some of the given quantities are literal, and may be supplied with examples a little more likely to aid his future studies, than the conundrums about posts and saddles, which we have instanced.

At this stage of his progress the pupil should be set to work a problem in which a negative result occurs. It should then be pointed out to him that there is a misconception of the problem itself, and the manner of rectifying that error will shew in the course of several examples, what is the meaning of the negative answer. At the same time it will be easy to explain by examples the nature of the wrong suppositions which lead to results of the form $\frac{a}{0}$ and $\frac{0}{0}$. He should then examine for himself what change is produced in a process which sets out with some assumption as to $b-a$, when this has been incorrectly written for $a-b$. By comparing the true and false processes he will deduce the rules according to which negative quantities must be treated, in order that their introduction may not affect the soundness of the conclusion. He is thus placed in the same condition as to results with the pupil who has pursued the common method, with this difference, however, that he can explain conclusions which the other cannot, and has never believed that, $a-b$ meaning a diminished by b, there can be such a thing as $-a$, or a quantity *less than nothing*.

The view which is generally taken of expressions of the first and second degree is too confined for the future purposes of the mathematical student. It is this: what values of x will make the expressions $a\,x-b$, $a\,x^2-b\,x+c$, &c., equal to nothing; whereas it is necessary to inquire what values of x make these expressions positive, negative, or nothing. All that is learnt, appears to have no higher view than enabling the student to solve the pretty problems which we have men-

tioned, and not to simplify the higher parts of the science. This is too much the fault of the education of our schools in general. It is not recollected that they cannot expect to make learned men; but they may make good learners, and at the same time produce such a desire for knowledge as shall lead the individual to devote himself to study, where it is not matter of compulsion, as in the Universities, and still more amid the occupations of life. The great mistake lies in a notion that they are to teach the greatest possible number of bare facts, before the pupil arrives at the age of sixteen: whether he will leave school, with the desire of adding one more bit of knowledge to his stock, or with the power to do so if he has the will, does not seem to be considered of any importance. Again we call upon all who still adhere to the old system, to reflect a little on their own interest. The number of new methods of teaching proposed every day shows the existence of a general feeling that some change is requisite. The Universities, which have made great advances within the last twenty years, may be proposed to the schools as an example for their imitation. And let them recollect, that, the demand existing, the question is not whether they will supply what is asked for, or something else, but whether the public must come to them, or go elsewhere.

CHARITY SCHOOLS.

Those who are desirous to promote the education of the poor have frequently been at a loss to reply to one of the objections advanced by persons who consider their exertions useless or injurious. It has been said, that notwithstanding the many provisions for imparting the supposed benefits of instruction to the lower classes, their ignorance of what is useful has continued almost undiminished, whilst their pretensions have been very much increased. The boys educated in the different Charity or National Schools are often, it is alleged, found to be unwilling to engage in, or unfit to undertake, the kinds of work most suitable to their condition, and by which they ought to live; whilst the girls, who have been taught to read and write, and to solve arithmetical questions, do not acquire the smallest acquaintance with many things most essential to their comfort, and most adapted to their probable station as servants or as the wives of working-men.

Without placing implicit reliance on the general complaints of the deterioration of the character of servants in general,—

complaints which a recollection of similar murmurs heard from the lips of the oldest people concerning what they supposed to have taken place in *their* days, as well as a reference to details of domestic life in centuries that are passed, will show to be little more than repetitions of old discontent;—it must yet be acknowledged that there is some truth in the representations, so generally made during late years, that many boys who have been well educated incur disappointment and ruin on account of their being unaccustomed to habits of humble industry; and that it has become difficult to procure female servants who will undertake the harder kinds of work. Too many of the boys aspire to be clerks or shopmen, and too many of the girls to be governesses, lady's-maids, or nurse-maids. There is not a town, or a village, in which the settled inhabitants cannot point out many young women whose humble origin would formerly have led them to offer themselves as servants, but who have been observed of late years to despise such a mode of supporting themselves, and to give a preference to the more precarious, and in their estimation the more genteel, although probably not in reality the less laborious, employment of dress-making. The number of dress-makers, thus increased far beyond the demand of parts of the country in which changes of fashion are not made with great rapidity, has led to worse consequences; by exposing a number of young women to all the temptations and evils which idleness and a fondness for finery induce, and from which less pretending occupations would have protected them. Those who have opportunities of closely observing the state of small communities, and the changes they undergo, will assent without difficulty to these remarks; and there is much reason to believe that the prisons and penitentiaries of London would furnish numerous illustrations of them.

These admissions may be made without prejudice to the cause of general education; but they lead to the conclusion that the plan of education, pursued with respect to boys and girls of the lower classes of society, is unsuitable to their present and their probable future condition, and also incomplete.

In the charitable provision made for the education of the poor, either by the state, or by the bequests of benevolent individuals, of which few towns throughout the kingdom are entirely destitute, the object of the provision has varied little, even in the multiplicity of individual feelings in which the foundations may be supposed to have originated. The schools chartered by the state were, it is but reasonable to presume, intended for the benefit of the poorer portion of the

middle classes; and those founded by individuals were in some instances intended to promote these views of the government, in others to hold out peculiar advantages to a proportion only of the poorer and still more neglected class of people; and in a few, for the sole purpose of enabling poor children 'to read well in the bible.' (Fox's School, Cleobury Mortimer, Salop.)

The public or grammar schools, being instituted on nearly an uniform plan, have in some places risen above their original design, and in others fallen below it. Indeed the objects intended by the founders were seldom very precisely stated, and have often been matters of dispute. It is often stated that the boys are to be taught 'in learning and good manners;' or, 'in grammar and other good learning;' or merely, in general terms, that boys are to be 'freely and carefully taught and instructed,' or 'piously educated;' or instructed 'in religion and other good literature.' Subsequent to the Revolution, more care is observable with respect to making religion a part of school education: thus in the free grammar school in the borough of Chesterfield, which Elizabeth had founded 'for the pious education of the same,' a later gift, in 1690, directs that the boys should learn 'the accidence and the assembly's catechism;' and during the eighteenth century most of the directions are particular as to the education of youth according to the Protestant religion of the state.

It would evince great ignorance of what has been effected by their means to speak of the grammar and free schools in terms approaching in the slightest degree to disrespect. They diffused learning over the land at a time when various circumstances would have debarred from its advantages all but the inhabitants of cities, and mainly promoted the first circulation of knowledge, and the cultivation of liberal and enlightened habits of thought and feeling, through all parts of the kingdom. That they are now less useful, has arisen from the altered state of society. In the larger towns, they have become places of classical education, and resorted to by scholars of a higher class than those for whom they were first intended. English reading, writing, and arithmetic, form perhaps no part of the plan of instruction, and a knowledge of Latin is deemed an essential condition of admission. In towns of moderate size, these regulations materially limit the utility of the school: as, for instance, at Chesterfield, where it appears there has sometimes not been a single boy at the school. (Report of Public Charities, vol. xviii., p. 149.) In some places, (as at *Ripon*,) the free schools are decaying,

in consequence of the indifference of the poorer classes to Latin and Greek, and their unwillingness or inability to pay for Latin books, and for instruction in reading and writing. That they are anxious for the latter kind of instruction is shown by their sending their children to the national and other schools; as well as by the fact, that in the free school founded by the Hon. Robert Boyle, at Bolton in Yorkshire, in 1697, where writing and arithmetic are only taught during six weeks before midsummer, the number of scholars during that time is generally doubled. (Reports on Public Charities, vol. iii.) The scholars of these particular schools, thus desirous to obtain the simplest instruction, are the children of poor persons, for whom it may perhaps be said the schools were not intended. But people of the middle classes in small towns equally feel the hardship of having to pay for that kind of education which their sons cannot do without, and having that held out to them as a boon of which they with good reason very much question the utility. A poor tradesman has sometimes an ambition to see his son a scholar; but the majority of poor tradesmen would wisely prefer that their sons should read well, write a good hand, and understand accounts. This has been taken into consideration in many instances; and the schoolmaster is willing to teach Latin to those who desire to learn Latin, and English to those who desire to learn English; as well as writing and arithmetic. Where such considerations have been overlooked, the schoolmaster either holds a sinecure, or keeps a school full of scholars who pay for their education; or, worse than this, a small number of boys, chiefly the sons of persons in good circumstances, are taught Latin and Greek at a very disproportionate expense. The annual expense of St. Paul's School, founded by Dean Colet, in 1508, 'for the instructing of boys in good manners and literature,' is about 6000*l*. and the number of scholars, instructed in classical learning, is 153. By the statutes of St. Paul's School, drawn up by the founder, it is directed that there shall be taught in the school children of all nations and countries indifferently, to the number of 153; that at the time of their admission they should be able to say the catechism, and to read and write competently, and that they should be taught good literature, both Latin and Greek, 'and good autors, that wrote theire wisdom with clean and chaste Laten, other in verse or in prose;' the founder's intent being, 'by this scole specially to increase knowledge and worshippinge of God and our Lord Christ Jesus, and good Christen life and manners in the children.' (Report of the Commissioners, vol. iii., p. 287.) This kind of

education does not differ enough from that prescribed in other schools, to afford a fair inference that the school was only meant for the higher classes: and although it is prescribed that the children are not to burn tallow candles in the school, but *wax*, at the expense of their friends; yet there is also mention made of the *poor* scholars of the school. The expense of the wax tapers is seldom incurred; and in the absence of specific directions, boys are taken into the school from every class; generally, however, with some regard to the probability of the education given being useful to those selected. The boys receive a complete classical education. In addition to nine exhibitions of 100*l*. each, left by Lord Campden, the Mercers' company, who manage the estates and property of the school, have appropriated 450*l*. of the revenues to establishing nine other exhibitions of 50*l*. each.

The funds might doubtless be better applied than even in the distribution of such expensive rewards for boyish competition as medals worth 20*l*. each, causing an annual charge of more than 200*l*.; and *much* better than in courts and committees, which alone cost nearly 300*l*. a year. The sums of nearly 500*l*. for surveyor's expenses, and upwards of 600*l*. for law, may be looked upon as merely incidental to the year in which the commissioners made their report; but they show the sums available to purposes more beneficial to the public.

The regulations of all the free or charity schools of this country, the grammar schools excepted, comprehend however no more than an obligation on the schoolmasters to teach reading, writing, and arithmetic; and as in many of these schools girls and boys are taught together, an occasional but not a constant addition in these cases is, that the girls should be taught to sew and knit: the boys are sometimes included in this provision; and it is often further specified that the children should be diligently instructed in the church catechism. The education of women in the higher ranks in this country, which had previously been more careful, became so little attended to after the Revolution, that this range of acquirement was quite equal to that possessed down to the middle of the last century, or later, by the daughters of country gentlemen; and as the number of children benefiting by all the charity schools put together was very limited, the benefit had chiefly the effect of encouraging a portion of the younger part of the population to general improvement, which would of course commonly be followed by an improvement in their prospects and condition. It is the extension of the benefit, without a proper modification of it, which seems to have been productive of mischief.

With respect to boys, it is found that certain encouragements to the acquirement of a learned education are afforded, sometimes to a small number, and sometimes to one, in different parts of the country; not unfrequently according to the testimony of old gentlemen who died childless, and wished to leave some provision for the instruction of others in that kind of learning which had probably been the solace of their retired hours and declining years. Such solitary bequests may occasionally have been the means of aiding and advancing a youth of talent, already distinguished at a country school; although they have too often merely conferred a little useless learning on those whom the acquisition prohibited from that cheerful industry which would have procured them independence and comfort, and consigned for life to the duties and hardships of a poor and neglected curate and village schoolmaster. In some places (as at Halsham in Holderness), the provision for a classical education, although connected with a scholarship, has not been taken advantage of. In such districts nobody wants that particular kind of help, or nobody wishes for it.

The encouragement given to education, and consequently the facilities of obtaining it, have, during the last fifty years, increased beyond all calculation. There is not a town, there is hardly a village or hamlet in England and Wales in which some charity school has not been instituted; and of these a considerable proportion are founded on what is termed the national plan. Whilst the number of poor children who receive instruction has thus, however, been greatly increased, it has followed, almost as a matter of course, that there have been many among them who have experienced much disappointment. When few could get instruction in reading and writing, those who could were sure of obtaining the best kinds of employment. When the number of the instructed became increased, *the nature of the instruction remaining the same*, there were many who were necessarily unable to obtain those kinds of employment which had until then been regarded as the sure recompense of some skill in writing, and reading, and accounts. Formerly, if a poor boy broke a leg or an arm, or was sickly or deformed, efforts were made by his parents to give him the advantages of the common school education; and instead of being made a blacksmith or a shoemaker, he became an attorney's writer, or a clerk to a merchant, or perhaps a schoolmaster. Now, when every poor boy in the village can read and write, and knows arithmetic, they cannot all be writers, or clerks, or schoolmasters; some must be blacksmiths and some shoemakers; and until the benefits of education have been fully enjoyed by one or two generations, some remains of the first dissatis-

faction felt on this account will probably prevail. But the dissatisfaction may be lessened, and several bad consequences found to arise from it removed, or at least prevented for the future, by *changing the kind of instruction that is given.* That which was formerly held out as a charity, was intended to lift the few who were fortunate enough to obtain it from the sphere in which they were born to a higher; it was held out to few, and the effects of such encouragement produced no inconvenience. That the same advantages, or the same kind of encouragement, being now held out to *many*, must be inconvenient, may be easily supposed; and the inconvenience of the fruitless aspirations it gives rise to is aggravated by the positive disqualification, arising out of such a system of education, being extended to those who can only live and thrive by manual labour, to which, in the many years devoted to education, they are in no degree habituated.

It is really surprising to observe how seldom this very plain view of a subject, which has occupied so much attention, has been taken. The places are very few in number in which any additional regulations have been made in schools with the direct object of fitting either boys or girls for those stations which they are likely to fill after leaving the schools. Where such an attempt has been made, as in the charity school of the parish of St. Mary-le-bone, London, established in 1750, for the education of girls and boys, that part of the plan which related to the boys has been subsequently abandoned. There are evident difficulties, especially in large towns, in the way of so enlarging the common education of boys as to include instruction in different kinds of useful labour. The household occupations suitable to girls may be provided with less difficulty; and no charity schools have perhaps been so useful as those of which the object has been to qualify girls for becoming servants; for a good female servant will generally make a clever and useful wife for a working-man. These schools are not even yet very numerous. There is an excellent one called Cogan's Charity, at Kingston-upon-Hull, founded by Alderman Cogan in 1753, for the children of poor people of good character. Each girl remains three years at the school, and is accustomed to knit and sew, and in her turn to wash and do all the work of the house. They receive 20*s*. on leaving the school 'for fitting them with necessaries for service;' and as an inducement to a perseverance in good conduct afterwards, a small marriage portion is given to those who apply for it, and bring proofs that they have conducted themselves well in their places. Although for the twenty years ending in 1822 there

were never fewer than twenty girls in this school, it is remarkable that only eight or ten out of the whole number had applied in that time for the marriage portion (about 6*l*.*). This may perhaps be regarded as a proof that the majority had so far profited by their good education as not to be without the means of commencing housekeeping when they entered into the state of matrimony.

Schools for female servants have, we believe, become more general during the last ten years. There is one at Cheltenham, which is considered to have been very useful; and the Brighton Asylum for Poor Female Orphans, wherein the girls are lodged, boarded, and clothed, as well as 'regularly trained in such habits of industry as will tend to make them useful servants,' is one of the most excellent charities of that populous town. The benevolent persons who act as the committee of schools of that kind would do an additional service to the community if they would enter, in their annual reports, a little more into detail concerning the plan of instruction, and the effects of it, as far as they may have been observed. This might be done without adding to the expense of the report, if the names of the patrons and trustees were printed in somewhat humbler type, and those of the charitable subscribers expanded over not quite so large a space. In the Brighton school, the number of girls is seventeen. The school was established in 1823, and five girls have been placed in services, all of whom have maintained an excellent character.

The Mary-le-bone charity school, instituted at a time when that parish, now containing upwards of 100,000 souls, was little more than a village, was designed 'for instructing, clothing, qualifying for useful servants, and apprenticing, the children of industrious poor parishioners.' A grant from the Countess of Oxford in 1754, and various donations, legacies, and subscriptions since that time, enabled the trustees to enlarge the plan of it, until sixty boys and sixty girls were clothed, educated, and maintained in it. The boys' school was carried on for some years, but unsatisfactorily, and was then abolished. In 1830, the number of girls was increased to 100. 'The girls are taught to read and write, and are practised in such rules of arithmetic as the trustees think necessary; they also learn plain-work, and regularly assist in performing the domestic offices of the house, that they may be trained to the habits and duties of useful servants. Above all, they are carefully instructed in the knowledge of their

* Reports on the Public Charities, vol. ix.

religion and the practice of its duties.' Girls are admissible into this charity between the ages of nine and eleven, and they leave the school at fifteen; receiving on th. occasion a bible, a common-prayer book, a short formulary of private prayer (Bishop Bloomfield's), and a printed exhortation to the proper discharge of their duty. If, within three years after leaving the school, any girl produces a certificate of having remained in the employ of one master or mistress for the space of two years, the sum of two guineas is given to her, as a reward, and an encouragement to continued good conduct. The same reward is given if, within five years, a certificate is produced of her having been in two employments for periods amounting together to at least three years: and in either case, it is of course required that they should have conducted themselves honestly, soberly, and diligently. During the time the girls are at the school, they are required to rise at six o'clock in the morning from Ladyday to Michaelmas, and at seven during the other six months of the year. They retire to rest at eight in the evening, except in June, July, and August, when they sit up till nine. They are accustomed to make their own beds; to clean their own knives and forks, and shoes; and to be scrupulously clean in their dress. Prayers are read to them by the mistress in the morning and evening. Their chief employment is needle-work, but they are employed in rotation to clean and scour the school-rooms, the play-rooms, and the washing-rooms, the tables, forms, and stairs, as well as to prepare and remove the meals of the rest of the scholars, and to wait upon the domestic superintendent and officers: they are allowed to visit their parents or friends on six separate days in the year, under certain restrictions, the object of which, as of all the regulations, is to preserve them from irregularity, and every kind of danger arising from bad company and bad example.

The value of charities of this description is too obvious to require particular comment. By establishing *good habits*, they doubtless accomplish more than can ever be effected by mere precept; and they not only tend to make useful servants, but provident, neat, and intelligent wives and mothers. If it were possible to engraft some part of such a system on the national and other schools, these advantages would become generally diffused, and the consequence would be a great increase in the comfort of the houses of the poor, and an accompanying contentment, productive of the best results on the character, among young married men of the working-classes; whom the extravagance or mismanagement of untidy

and ignorant partners often drives to ale-houses, and other resorts of idleness and dissipation. In some parts of the united kingdom the neglect of the common and useful parts of education is still more striking than in England. Girls who have passed through the charter schools of Ireland have been found to read and even to write pretty well, but unable to 'hem a handkerchief or mend their own stockings*.' We cannot wonder, therefore, that they often become objects of derision to their fellow-servants, and are considered to be 'so ill taught and so ill qualified, that not even the offer of a bounty would tempt the commonest farmer to receive them.'

The evils of the English schools are not exactly of this nature; but they are still such, even as regards girls, as merit serious attention, and the education of the boys is still more open to objection.

Among those who have endeavoured to secure the advantages of education to the lower classes without the evils arising from ignorance of common things, the name of Mr. Montagu Burgoyne deserves to be honourably mentioned. In an 'Address to the Governors and Directors of the Public Charity Schools,' lately published, he states, that in the course of his inquiry into the subject, he has visited almost every place either of refuge for the distressed, or punishment for the vicious, and has found a considerable portion of the juvenile sufferers or delinquents to consist of boys and girls educated in the national schools, and who had come to London from different parts of the country, in hopes of *bettering* themselves. It is melancholy to reflect on the number whom London receives into its vast population every year, to encounter disappointment and distress, and to fall sacrifices to disease or crime. Of these, with the exception of the Irish poor, the majority have learned what is commonly taught at school, but nothing more: having reached the age of fourteen, they know no trade, and are uninstructed in any occupation by which they can get a livelihood: they fancy that, being better educated than their parents they must assume a higher station, and learn too late, and by ruinous experience, that such attainments as they possess have become common, and do not supersede the necessity of manual labour. The only cure for this great and increasing evil would certainly seem to be, making some additions to the ordinary education of those whose prospects and character suffer so greatly under the present plan. The object of all education is to fit those who are educated for their duties in

* First Report of the Commissioners of Irish Education Inquiry, p. 23.

society; and if a system is generally acted upon of which the effect is *not* to prepare, but actually to disqualify, those educated according to it for the duties on which their usefulness, their independence, their content and happiness depend, the error is serious indeed. If the charity of the higher classes is perverted into an instrument of national evil, that charity ought to be better directed, or altogether withdrawn. For an erroneous system of education, productive of discontent, vice, and unhappiness, something must be substituted by which such results, the increase of which is inconsistent with the safety of human societies, may be checked at once, and effectually prevented for the future.

Every plan proposed with such views merits respectful consideration. That of Mr. Montagu Burgoyne, which is in operation at Potton, in Bedfordshire, is recommended by its simplicity and its apparent utility. The children are not only instructed in reading, writing, and arithmetic; but half of the school hours are spent in works of useful labour and industry. The boys mend their own clothes; they clean and mend their own shoes, and are taught to clean knives, and to use a hammer, and to dig and garden, and hedge and ditch, and even to plough. The girls are accustomed to the most useful kinds of needle-work; are required to mend their own clothes, and learn the business of a house and dairy. Thus prepared, both the boys and girls will be found able, when they leave the school at fourteen years of age, to earn an honest living. The boys, instead of expecting employment as clerks or book-keepers, will be active and useful farming servants, or grooms, or coachmen, or valets, or gardeners; or apprentices to different trades; or intelligent soldiers and sailors, able to profit by the advantages and to contend with the difficulties of any station or circumstances into which they may be thrown. The girls, instead of aspiring to be milliners or lady's-maids, will be active and clever housemaids, dairy-maids, or cook-maids; and, when they marry, will be able assistants to their husbands, and acquainted with the best way of preparing food and clothing for a young family. Poor as are the labouring men of this country, their comforts might often be greater than they are, if their wives were not utterly ignorant of the best mode of laying out the little that is earned by the husband's labour. Both provisions and clothing, although often wanting, are also often wasted in the humblest cottage; and whilst everything is commonly bought at the greatest disadvantage, there is so much ignorance of brewing, baking, cooking, and all useful domestic arts, that what is called comfort is too often quite unknown

to the weary labourer at the end of his day's work, or to his ignorant and helpless wife at any time. It would be wrong to ascribe all their discomforts to an erroneous education, but certainly a different education would go far towards removing them, and towards making the humblest cottage of an honest man a comfortable home.

The benevolent individual to whom the school at Potton owes its establishment has zealously endeavoured to interest the neighbouring agriculturists and horticulturists in its success; and has greatly enlarged the means of carrying the great principle of the school into effect. A field is allotted to hedging and ditching, levelling land, &c.; different methods of cultivation, and other experiments are occasionally tried. There is a nursery-garden in which the boys are taught the different kinds of budding and engrafting, and other horticultural knowledge; from which it may readily be supposed that many of them are likely in the course of their lives to be materially benefited. A working-man who does not depend on a garden for his subsistence may derive much happiness from knowing how to cultivate it; and, pleased with an employment innocent in itself, and ornamental to his dwelling, may devote those hours to it which would otherwise be very idly or unprofitably spent. The female scholars, also, might usefully acquire a knowledge of the cultivation of fruits and vegetables, the cheapest and best luxuries of the poor man's table.

Little encouragement will probably be required to induce the parents of poor children to send them to schools of this kind; but as a further incentive, it is intended at Potton not only to allow the boys to be engaged in work for which they are paid, when such work is to be had, and to allot small portions of land to those children who conduct themselves satisfactorily, but further allotments are allowed, at a low rent, to the parents of those children whose conduct or proficiency distinguishes them above their school-fellows; which allotments are taken away when the boys or girls cease to behave properly. The parents are also to have the benefit of getting milk from the dairy at a low price; as well as to send their bread or pies or puddings to the school oven once a week; or to brew in the copper; regulations which none will ridicule who know how difficult it often is to introduce the most undoubted improvements, or even to benefit the poorer class of persons in a way to which they have not been accustomed.

In the formation of any school whatever, it is essentially necessary that the founders should consider the actual wants

of that part of the community for whose benefit the school is designed. The object of charity schools is to form industrious, honest, and intelligent working men and women; and this object will be best obtained by combining with the ordinary elements of school education, an acquaintance with some certain means of obtaining a livelihood. Such an object is, perhaps, one of the most important that can occupy the mind of those benevolent persons whose zeal is the cause of zeal in others. Whether we regard the amazing sums annually devoted to purposes commonly esteemed charitable, or the spirit with which such vast means of relief are distributed, we cannot but feel surprise when we contrast these great and good exertions with the indigence which yet infests every corner of the land, and with the ignorance in which so many of the working people are found whenever particular events make them prominent objects of attention. To go no further for examples, the late trials of disturbers of the public peace have disclosed the most striking evidence of the latter of these circumstances, if not of both. The evident conclusion is, that a large part of the funds of charity is mispent, and that much of the care and attention of the patrons of education is little better than thrown away. The *people*, who are the persons for whose comfort and direction the generosity and superintendence of the rich seems to be so actively exerted, are found to be a prey to destitution and discontent, led away by itinerant orators, and engaged in crime by unknown leaders; persuaded to rise against many who are their constant friends and benefactors, and to do all in their power to effect objects which if effected would ruin them.

These are truths that invest the homely object of charity schools with the deepest interest, and make it the duty of all who exercise either a direct or indirect influence over these well-intentioned institutions, to examine into the working of the present system, and to inquire whether it may not be amended. The full blessing of charity can only descend on the poor when it is so directed as both to enable the poor man to become independent, and to excite in him the wish to be so. To effect the first part of this great object is the intention of friendly-societies, savings-banks, and self-supporting or district dispensaries; even that cannot be fully attained unless the poor man's education has given direction to his strength and skill to his industry; and the second part of the object, the creation of a wish to depend on his own exertions, can be effected by education alone.

No error, however, is more common, than that of considering education to be at an end when boys and girls leave

school. Under the present system, the most important part of education is then but beginning; and under any system, much will remain to be acquired and done when the school days are over. To imagine that the morals of the working-classes can be insured by the mere institution of schools of *any* kind, is to know little of the circumstances to which they are continually subjected. Without some superintendence of those who have passed through the charity schools, at their outset in life, all the benefits of the previous care bestowed upon them are soon lost. None perhaps but those who have lived in retired parts of the country can know the actual neglect and abandonment which is yet conspicuous with regard to the labouring classes in particular districts, the extent of their ignorance, their want of some superintending and guiding hand, their indifference to improvement, and the difficulties in which they commonly soon become involved. In the mode in which partial relief is afforded to them, and in the immeasurable distance at which they are placed, not only from the higher classes, but from every other class, and in the infrequency with which they enjoy any opportunities of religious or moral instruction, public or private, may be seen so many aggravations of their unhappy condition. If, putting *their* case out of consideration, we turn to the population of large towns, we find the poor who leave the schools not so wholly without the means of further improvement, but surrounded with tenfold temptations. A very large proportion of the children of the London charity schools become the domestic servants of the rich and great, whose mode of life is particularly unfavourable to the preservation of regular habits in their household dependents. If human ingenuity had been employed to devise a means of corrupting the youth of either sex, it could not have attained a more compendious method of doing so than by causing them to keep the hours, and observe the regimen, and see the manners, and hear the conversation, to which honesty and innocence are at once introduced in the service of people of fashion. So long as this is supposed to be an unavoidable evil, it will be quite useless and unjust to complain of the idleness, profligacy, improvidence, and ingratitude of those for whose early benefit the heads of families have subscribed an annual guinea to a charity school.

REVIEWS.

THEORY OF MECHANICS.

The Elements of the Theory of Mechanics, by the Rev. R. Walker, M.A. of Wadham College, Oxford, D.B. Talboys, 1830.

We are glad to announce the appearance of an analytical work on mechanics from Oxford, which has hitherto too much neglected the important branch of mathematics just alluded to. This production shows, that if that university still continues to undervalue the modern methods, it is not for want of one man at least who understands them thoroughly, and can exhibit them in a clear, simple, and elegant form. A few more equally successful undertakings, and Oxford will not any longer borrow elementary treatises from Cambridge.

Before entering upon the consideration of this work, we will just notice the beautiful manner in which it is printed and got up. Of all the mathematical treatises which have been published in England for the last twenty years, none, in our opinion, can compare with it in this respect. This is due to the *double leads* between the lines, and the manner in which the mathematical expressions are thrown out, so as not to be lost among the letter-press. The table of contents is excellent, and forms a perfect syllabus to the work.

This treatise is upon the model of the first volume of Venturoli's mechanics, known in England by the translation of Mr. Creswell. As a whole, we prefer the work now before us, on account of its avoiding the mixture of methods, which sometimes deforms that of Venturoli. That we consider this no small praise, will appear when we say, that we considered, and do still consider, the Italian work as of the highest utility to those students, who have been well grounded in the differential and integral calculus. We proceed to a detailed examination of the body of this work, dwelling most on those points on which our opinion differs from that of Mr. Walker.

In the chapter of definitions, force or power is defined to be 'the cause which produces or tends to produce motion or change of motion,' and the parallelogram of forces is established after the method of Newton. In an appendix are given the rigorous demonstrations of Laplace, Poisson, and Pontécoulant. The old objection, that Newton's demonstration is not united to the statical problem, we perfectly coincide in, but why, when giving a better one in an appendix did not the author supply a better and more statical way of measuring

the effects of force. Again, we do not see the necessity of three distinct proofs of this proposition. That of Poisson would have been amply sufficient. The rest of this chapter, on the equilibrium of forces meeting in a point, is altogether unobjectionable. The author then proceeds to the general conditions of equilibrium of any rigid system, which only wants a collection of examples to be perfectly intelligible This Mr. Walker proposes to supply in a separate work. We can only say, we hope he will keep his word. He says 'This second volume shall contain, deductions from the principles here established, a selection of examples with their solutions, either complete, or partly so, or merely with their results, as may appear necessary, and any historical illustration or remark, which may throw light or interest upon the subject.' Such a work, somewhat similar to Peacock's Examples of the Differential and Integral Calculus, is a desideratum, and we doubt not will be most effectively supplied by Mr. Walker.

In treating of simple machines, the whole effects of friction are omitted. This is a serious defect. The law of friction, in statics at least, is as well determined as any other, and the results are often remarkable for their analytical beauty. The equilibrium of flexible bodies, also, is not treated with that degree of generality to which it is entitled. We find only the common funicular polygon and catenary, well treated certainly, but no mention is made of the general equations of equilibrium, either in flexible or elastic substances. Venturoli would have been an excellent guide. The principle of virtual velocities, that singular generalization of all the problems, both of statics and dynamics, is altogether omitted, which, considering the part that principle must play, in the future studies of every one who reads this work, is not to be defended. The demonstration given by Lagrange, at the commencement, of the Mécanique Analytique, sufficiently developed to be intelligible to the beginner, might be introduced with great advantage, since it makes this important principle almost self-evident to the eye.

We now proceed to the part of the work which is devoted to dynamics. Here, as before, there are no faults to be found except those of omission. First, we will notice, the general equations of motion of a point round a centre, in which the author proceeds no further than the supposition of a force, directed only to the centre. The time is past when the studies of those who read such a work as this, are confined to the planetary theory on the elliptic hypothesis only. The perturbations of the system begin to be taken into account,

and, since the publication of Professor Airy's excellent mathematical tracts, are more attainable than they used to be. Such equations, therefore, should be introduced into elementary works on dynamics, as will lead the pupil close up to the confines of the higher astronomy, and there leave him, in possession of as much mathematical knowledge as will enable him to recognise as old acquaintances all the preliminary steps. The general equations of the motion of a point, acted on by *any* forces, to polar co-ordinates, should therefore be introduced, either as given in Professor Airy's work or even in the form in which they are exhibited by Laplace. The same may be said, of the equations belonging to the rotation of a body round a variable axis, and the attraction of spheroids.

D'Alembert's principle, with all its important consequences, are clearly deduced, and great simplicity and symmetry reign throughout the investigations; but as they are necessarily extremely like those given in other works, we have nothing to say in reference to this particular one, except to praise the selection and general execution. But when we come to the second part of the dynamics, which treats of the laws of the motion of matter, we find no investigation of the effect of the resistance of the air on projectiles, or on the pendulum. On this latter subject results sufficiently practical have been given by Professor Airy, in the Cambridge Philosophical Transactions, in so simple a form, that no fear of frightening the reader with long series can induce an elementary writer to neglect them. The application of D'Alembert's principle to the motion of machines is omitted, as is also the principle of least action, both of which it might be desirable to introduce.

There is one remark which we have to make upon the general execution of this work. Without the promised examples, or the assistance of a good tutor, it is rather a manual for the proficient, than a text-book for the beginner. We do not say it would not be of the highest use to the latter, but not unless accompanied either by another work, or an able teacher. Taking this view of it, we sometimes find propositions purely mathematical given at length, while the demonstrations of others, of more difficulty, are omitted. It is certainly advisable, in a work of this description, not to load the work with mathematical investigations, which may be found by reference to any work on the differential calculus but if any proposition of a certain degree of difficulty is omitted as known, all which are more easy and more common should be omitted likewise. This is not always the case in the present work. For example, the integration of the

equations $\frac{d^2 x}{d t^2} = 0 \; \frac{d^2 y}{d t^2} = 0 \; \frac{d^2 z}{d t^2} = 0$ is given (p. 71), while the student is referred (and very properly) to other books for much more difficult matter, such as the expression for the radius of curvature of any curve, and difficult and complicated integrations.

With the exception of this, and some other very small defects, and the omissions to which we have alluded, we can say nothing of this treatise but what is good. It is at present an excellent manual; when the collection of examples appears, it will be a most useful work for the beginner. On the execution of the second part much will depend; but the author has shown himself too well acquainted with the subject, to allow us to believe that there will be any falling off. Coming from Oxford, this treatise will be peculiarly acceptable, to all who wish for the advancement of science in England. Without the least disposition to sneer at the state of mathematical knowledge in that university, as is done by some, who, generally speaking, know but little of the position of affairs there, we assert a fact, admitted generally enough in Oxford itself, that their course of scientific studies, till very lately, did not differ materially from what it was, in the half century which followed the death of Newton. On the necessity of the reformation which has already begun, all who understand the subject are of one mind, and we hope and believe the day is arrived, when the repugnance to innovate, which distinguishes the University of Oxford, is so far modified by a conviction of the necessity of advancing with the age, as to guarantee the continuance of all that is good, without at the same time giving a handle to its enemies, by the exclusion of admitted improvements.

LEMPRIERE'S DICTIONARY.

1. *A Classical Dictionary; containing a copious Account of all the Proper Names mentioned in Ancient Authors,* &c. &c., *by* J. Lempriere, D.D. *The Fifteenth Edition, corrected.* London: Cadell, 1829.
2. *A Classical Dictionary,* &c., *by* J. Lempriere, D.D. *Fifth American Edition, corrected and improved by* Charles Anthon, Adjunct Professor, Columbia College, New York. 1825.
3. *Bibliotheca Classica,* &c., *by* J. Lempriere, D.D. *The*

Third Edition, greatly enlarged, 1797. *Re-edited by* E. H. Barker, Esq., of Thetford, Norfolk, *with the improvements of* C. Anthon, Esq., &c.; *to which is subjoined by the present Editor an Appendix*. London, 1828.

4. *A Classical Dictionary*, &c., *by* J. Lempriere, D.D. *Edited by the* Rev. F. D. Lempriere, M.A. 4to. 1829.

It is the practice of our brother Reviewers to confine their labours almost entirely to recent publications. We acknowledge no such restriction. Our object is not to amuse by novelty, but to promote the grand object of education. In this point of view the date of a publication is a matter of indifference. In selecting any work for criticism we ask but two questions, or at the most, three: Has the work merit? has it an extensive circulation? or is it sanctioned by places or persons possessing authority? If an affirmative answer be given to the first question, the second is unnecessary. We must review and recommend. If on the other hand, a work having no merit has notwithstanding obtained considerable reputation (not a very rare case), we still review it. That which has neither merit nor circulation is left to its obscurity. Our third inquiry comprehends books used in our great public schools and in colleges; such books are often limited nearly altogether to particular places, but still they demand examination, as forming a part of our system of public instruction. Acting upon these principles, it is our duty to devote considerable attention to a book like Lempriere's, that has for so many years been in the hands of every schoolboy.

Dr. Lempriere's Bibliotheca Classica was first published in the year 1788, as appears from his preface dated from Pembroke College, Oxford. Its title was well calculated to invite attention. The young and old, the pupil and the master would be eager to possess a book, which promised to give 'a copious account of all the proper names mentioned in ancient authors.' A prudent man would indeed have asked, whether a single individual, not much above twenty years of age, was equal to a task so Herculean. Accurate knowledge in any part of any separate subject is a rare acquisition; but that any one should possess an intimate acquaintance with all the details of history, geography, and mythology, from the age of Homer to that of Constantine, from Cadiz to the Ganges, or even know where to find such knowledge, was a point on which scepticism was admissible. To have failed in such a task was no disgrace; but it would be difficult to excuse the temerity of the undertaking.

In the following examination, we shall commence with the first of the four works in our list; and, for the sake of dis-

tinctness, we shall take in succession the three departments, geography, history, mythology.

To begin with the most prominent feature in the map of Europe, we first turn to the word *Alpes*. In reading the varied history of Italy, it is important to be acquainted with its great northern barrier, and especially those passes which opened to the barbarians the fertile plains of the Po, and at a later period enabled the Romans in return to pour their legions upon Gallia. But no information of this nature is to be found in the article before us. We could not collect from it the fact of there being a single pass, but for the idle account of Hannibal's making his way through the rocks, by softening and breaking them with vinegar. The Alps themselves are described as mountains that separate Italy from *Spain*, Gaul, &c.; and a little below we are told that they are distinguished according to their situation by the different names of Cottiæ, Carnicæ, Graiæ, Noricæ, Juliæ, Maritimæ, Pannoniæ, Penninæ, *Poenæ*, Rhaetiæ, Tridentinæ, Venetæ. Hard names enough certainly. But what knowledge is to be extracted from them, when all geographical order is forgotten in their arrangement, and the maritime Alps seem almost purposely placed in the centre of the list? Our hope was that, as the present article omits all further description of these different parts of the Alps, we should have found the wished-for information under the several names. In this hope we first searched for the Cottian Alps; and were fortunate enough to find two accounts, viz., under the head Cottiæ Alpes, 'a certain part of the Alps by which Italy is separated from Gaul;' and under Coctiæ (b),* 'certain parts of the Alps, called after Coctius, the conqueror of the Gauls, who was in alliance with Augustus.' The precision of the two articles is beyond all admiration; but observe at the same time the valuable piece of information thrown in incidentally: 'Coctius, the conqueror of the Gauls.' Had the article Cottius not been forgotten, we should have perhaps found under it an account of this conquest. It is somewhat extraordinary that after depriving Rome of her most important province, he should still have retained his alliance with Augustus. If the reader wishes for farther information on the Alps, he will find that the Peninæ Alpes are 'a certain part of the Alps'—that 'Cremonis (b) jugum is a certain part of the Alps.' But enough of the Alps. The geographical description of the Pyrenees is completed in three lines and a half. The rest of the article is devoted to the origin of the name (a, b). This was derived, we are told, either from a young lady named

* (a, b.) The reason for which these letters have been attached to the word Coctiæ and others will appear afterwards.

Pyrene, who, being ravished by Hercules, brought into the world a serpent, which so terrified her, that she ran into the woods; or from a fire ($\pi\tilde{\upsilon}\varrho$) which once raged there, and caused the silver mines to run down in large rivulets. This account, it is candidly observed, is deemed fabulous by Strabo.

Descending from the mountains, we will next take Gallia. Under this head we find, among other remarks, the following passage:—'Aquitania Gallia, now called the provinces of *Poitou*, *Santonge*, Guienne, *Berry*, *Perigord*, *Quercy*, *Limosin*, Gascogny, *Auvergne*, &c., was situate between the Garumna, the Pyrenean mountains and the ocean.' Now a boy in the lowest form of a school with his Cæsar in his hand would have known that seven of the nine provinces enumerated, viz., the Pictones, Santones, Bituriges-Cubi, Petrocorii, Cadurci, Lemovices, Arverni, were situated, not between the Garumna and Pyrenees, but between that river and the Ligeris. The cause of the error is clear. There has been a confusion between Aquitania as defined by Cæsar, and the same province as extended to the Loire by Augustus. From the same article the following is extracted:—'Gallia (a, b) Transalpina, or ulterior, which refers to that part of Italy which was conquered by some of the Gauls.' It is true that five lines further on, a more correct definition is given; but such contradictions are common throughout the book. Thus we find a separate article, 'Cispadana Gallia, a part of *ancient Gaul*, south of the Po;' and to complete the confusion, 'Cisalpina Gallia, a part of Gaul, called also Citerior and Togata. Its *farthest* boundary was near the Rubicon, and it *touched the Alps on the Italian side*.'

Before leaving Gallia, let us point out a few errors of a slighter, but not very trifling nature. 'Petrocorii, the inhabitants of the modern *town* of *Perigord* in France' (a, b). When Chester and Cheshire become synonimous, we will not complain of any confusion between the province of Perigord and the town Perigueux. So again: 'Andes, a nation among the Celtae, whose chief *town* is now *Anjou*.' Similar errors will be found under Lemovices (a, b), Caturiges (a b), Helvii. Again: 'Albici, a people of Gallia Aquitania (b). B. C. 1. 34.' A reference to the passage quoted will prove these mountaineers to have dwelt above Marseille, and consequently at no inconsiderable distance from Aquitania. 'Armoricæ, cities of ancient Gaul, &c.' Is it necessary to observe that Armoricæ is not the proper name of any town or towns, but merely an adjective derived from *ar* and *mor*, *near the sea*, both of which terms, by the bye, are common to the Latin with the Celtic? The different mineral

waters in Gaul were of considerable note, but Aquæ Tarbellicæ, Aquæ calentes, two separate places called Aquæ Bormonis from the Gallic God Bormo, and from one of which the Bourbon family take their title, Aquæ Helveticæ, Aquæ Neris, &c., to say nothing of similar places in other countries, as our own Bath, Aquæ Solis, are all alike omitted (a, b). There is no article Aquæ of any kind. 'Seduni, an ancient nation of *Belgic* Gaul. Cæs. B. G. 3.' Now Cæsar himself, in the very passage referred to, fixes the Seduni on the Lake of Geneva and the Rhone, extending up to the summit of the Alps. Indeed their capital town is now Sion in the Valais. Most certainly the limits of Belgic Gaul never extended thus far.

We have dwelt somewhat long upon Gaul, because this is the country which the schoolboy first examines in reading Cæsar. It is also the country of all others, where accuracy is most easily attained; so that if we find the geographer fail here, we need scarcely examine any farther. But the dictionary of Lempriere has taken such firm root in our schools, that we despair of eradicating it, except by repeated efforts. Germany may be next examined. That part of the article Germania which is geographical, contains precisely ten words: 'An extensive country of Europe at the east of Gaul' (a, b.). That Augustus constituted two provinces Germania superior and Germania inferior on the western side of the Rhine, a fact most necessary to be known in reading Tacitus and the historians under the empire, is at the same time a fact not to be deduced from any part of Lempriere we have hit upon (a, b).

We will next take Italia; for we wish, by selecting the most conspicuous names, to convince the reader that there has been no unfair packing of evidence. It is not a great novelty to state that Italia, in Herodotus and the earlier Greek writers, includes only a small part of the whole peninsula at the southern extremity. It is a fact equally notorious, that Ausonia was a very limited region near the Liris, Aurunca, the epithet of the town Suessa, being nothing more than an equivalent form for Ausonica. But of such limitations not one word in the dictionary. On the contrary: 'Italy bore at different times the names of Saturnia, Œnotria, Hesperia, Ausonia, and Tyrrhenia.' More complete confusion could scarcely have been comprised in five words. The ancients, among their many etymological fancies, were too much in the habit of referring the name of every country to some king, prince, or princess. Such etymologies our author most religiously reports. Thus Thessalia, Pelasgia, Ætolia, Italia, Ausonia, &c., severally received their names from Thessalus

(a, b), Pelasgus, Ætolus (a, b), Italus, Auson, &c. The list might be carried through some hundreds; or we might more correctly say, that such trash constitutes the main part of the geographical department. But as if it were not enough to report the idle fancies of the ancients, in the article Ausonia, Virgil is seriously charged with an anachronism in applying Ausonia as a name for Italy in the age of Æneas, because, forsooth, young Auson the son of Ulysses was not then born (a, b). Under Hetruria we were rash enough to expect some remarks on the great extent of the Etrurian states in the ages before Rome became the dominant power. We expected to find some mention at least of those federated Etrurian states that were settled in the plains of Lombardy prior to the inroads of the Gauls: but we were disappointed. When the schoolboy finds Virgil applying the name Tuscan to his native Mantua, he must be left to charge the poet as before with an ignorance of geography equal to his ignorance of chronology. Or perhaps he will begin to suspect the dictionary rather than the poet, when he finds in the former such an article as: 'Mediolanum, now Milan, the capital of Insubria, *at the mouth of the Po*.' But we must not forget Rome. Of the immortal city the geographical and topographical description under the article Roma occupies about five lines (a, b). We must therefore turn to other parts of the book for information. The most important place to us in Rome is undoubtedly the great Forum. This was the scene of the public orations. The orator had around him the Capitol, the Tarpeian rock, the temple of Jupiter Stator, the different buildings on the Palatine, the Senate, the Comitium, &c. To understand then fully the orations of Cicero, we ought to have some knowledge of the magnificent spot where they were delivered. Yet although there are sixteen articles under the title Forum, the great Forum itself is altogether omitted. The Forum Augusti is thus described: 'a place at Rome' (a, b). The Forum Boarium so often mentioned by Livy is wholly forgotten (a, b). 'Transtiberina is a part of Rome on *one* side of the river' (a, b). So we might have inferred. The 'Tuscus Vicus is *a village near* Rome' (a, b). But it may be said that complete topographical accuracy is scarcely to be obtained by any study; and, when obtained, requires too much space for a general work like that we have before us. There is, however, no reason why a brief statement of the main outlines of the great city should be omitted. This moreover requires no deep investigations, nor any great space. Take for instance from Livy, 27, 37, the route of a religious procession, which of course would pass through some of the principal streets: "A porta (Carmentali)

Jugario vico in forum venere . . . . inde vico Tusco Velabroque per Boarium Forum in clivum Publicium atque ædem Junonis Reginæ perrectum.'

But we have seen enough of Italy Let us now cross the Adriatic. Our geographical guide would, perhaps, wish us to sail from 'Locri, a town of Magna Græcia, not far from Rhegium on the Adriatic.' But we prefer crossing from Brundisium to Dyrrhachium or Apollonia. We intended to have landed in Illyria; but our guide again informs us that Apollonia and Dyrrhachium (a, b) are towns of *Macedonia* on the Adriatic; and for fear of any doubt, the assertion is repeated, as regards Dyrrhachium, under the title Epidamnus (a, b); for be it observed that, in this dictionary, it is the practice, when a town has had two names, to give the same information twice over. See Padua, Patavium; Therme, Thessalonica (a, b). We must, however, correct our observation, for the information is not always the same. Thus, in the present instance, under the Roman name Dyrrhachium, we have an account of the Greek colony sent from Corcyra; under the Greek name Epidamnus, a colony from Rome is mentioned. This distribution of the information is peculiarly happy. But to return: from these two towns ran the Great Via Egnatia' a course of more than five hundred miles through Pella to Thessalonica, and thence to Byzantium. This road may be considered as the main artery of the Roman Empire; forming, together with the Via Appia, a communication between the capital and all the eastern provinces. But notwithstanding its importance, not a trace of it is to be found in Lempriere (a, b).* It may perhaps be imagined that it is not part of his plan to give the roads. To this it might be answered, that he ought to give them. But in fact it is part of his plan Thus we find the same Flaminian road twice over, *viz* under Flaminia Via, and then again under Via Flaminia (a, b) Under the last title, by the bye, the Via Flaminia is said to pass through the country of the Osci (*i. e.* Campania) and of the Etruscans (a, b). What should we think of a person, who said, that the York mail passed through Sussex? The errors throughout this book are so ludicrous, and meet one so constantly at every turn, that it is difficult to resist the temptation of digressing. We must return however to Greece; and commencing with Megăra, we are informed, that 'Megăra† is a city of *Achaia*, the

* This road crosses the great Candavian mountains, of which Dr. Lempriere gives the following Irish description: 'A mountain of Epirus which separates Illyria from Macedonia.'

† The error in the quantity of Megara is not accidental. Megaris is also

capital of a country called Megaris, &c.' (a, b). For this extraordinary error it is not at first easy to account. But let us see the article Achaia. 'Achaia, *called also Hellas* (b), a country of Peloponnesus at the North of Elis, &c.' Called also Hellas, say you? Well, turn to Hellas. 'Hellas, an ancient name of Thessaly, more generally applied to the territories of Acarnania, Attica, Ætolia, Doris, Locris, Bœotia, and Phocis, and also to all Greece. *It* received this name from Deucalion, *and now forms a part of Livadia.*' Of all the confusion we have hitherto observed in this remarkable work, nothing approaches the accumulation of error upon error in these passages. They together constitute a complete labyrinth of contradictions, arising also from an ignorance of two of the most familiar facts in Grecian history. Hellas in Homer's time was only applied to a part of Thessaly. Soon after it became the common appellation of the Greek nation, including their most distant colonies, and being in fact as vague a term as Christendom * in our times. Similarly the term Achaia for a long period was applicable only to the slip of land that lay along the southern coast of the Corinthian gulf bordering on Elis, Arcadia, and Sicyonia; but, as a Roman province it included all Greece south of Macedonia. Now forget these distinctions, cross the several meanings in every possible combination, and you may arrive at something like what we have extracted from the dictionary. After this it is scarcely worth noticing that our geographer transplants the Locri Epizephyrii from Italy to the Corinthian gulf, confounding them with the Locri Ozolæ. The geographical matter connected with Athens amounts to this: Athens, a celebrated city of Attica. But we must hasten on our circuit of the ancient world. In the Ægean sea one of the first islands we meet with is Ceos. As a preliminary we shall quote from Lempriere the six articles following:

'1. Cea and Ceos, an island near Eubœa, called also Co (a, b). 2. Ceos and Cea, an island, *vide* Co. 3. Cæa, an island of the Ægean sea, among the Cyclades, called also Ceos and Cea, from Ceus the son of Titan.—Ov. Virg. (b). 4. Coos, Cos, Cea, and Co, an island of the Ægean sea, *vide* Co. 5. Cos, an island, *vide* Co. 6. Co, Coos, and Cos, now Zia, one of the Cyclades, situate near the coasts of Asia Minor, &c. . . . The women of the island always dressed in white; and their garments were so clear that their bodies could be seen through, according to Ovid. . . The women of Cos were changed into cows by Venus,' &c.

marked long. So we find Tegēa (a, b), Tegæa (a, b), Nemæa (a, b), Amānus (b), Taygētus (b), Taygēto (b), Taygēta (*bis*) (b), Macēdo (b), Melīta (a, b), Matrona, (a, b), Philotīmus, &c.

* See Herodotus, II. 182; VII. 157.

The latter part requires no comment; and the reader of course knows that Ceos, now Zia, one of the largest of the Cyclades near Eubœa, is not exactly the same island as Cos, now Stanco, one of the Sporades on the coast of Asia Minor. The forms Cea, Cæa, and Co, we never met with except in Lempriere; and Coos is the adjective form from Cos.

But the islands in the Ægean are particularly remarkable for the various appellations given them. They boast of a number of aliases that the cells of Newgate might envy. 'Andros, an island in the Ægean sea, known by the different names of Epagrys, Antandros, Lasia, Cauros, Hydrussa, Nonagria (a, b).' 'The island of Rhodes has been known by the several names of Ophiusa, Stadia, Telchinis, Corymbia, Trinacria, Æthrea, Asteria, Poessa, Atabyria, Oloessa, Marcia and Pelagia' (a, b). The particular period, at which each of these twelve names prevailed, is not specified; but certainly for the last five and twenty centuries the name of Rhodes has maintained its ground. See also Eubœa, Samos (a, b), Delos (a, b), &c. As fifty lines of close print are devoted to the last-named island, we expected to find some notice of what is certainly the most interesting fact connected with this little rock, viz. that, from the destruction of Corinth down to the Mithridatic war, Delos was the chief entrepôt of commerce between Europe and Asia. But our author had weightier matters to communicate. He concludes his article thus: 'The people of Delos are described by Cicero, Acad. 2, c. 16 and 18, l. 4, c. 18 (observe, he would not venture to assert it without three authorities), as famous for rearing hens.'

Asia is the next field for our investigations. It is well known that this word belonged originally to a very small part of the immense regions now included under the term. Herodotus indeed uses it in the most extended sense; but with the Romans, the word Asia, in nine cases out of ten, means no more than the kingdom of Pergamus left them by Attalus. The term Asia Minor, which is the invention of modern geographers, has been duly defined by our author, but the other limitations of the word are wholly neglected. Now suppose a boy is reading the Manilian oration, and comes to the following passage, c. 3—'Et ita regnat (Mithridates) ut se non Ponto neque Cappadociæ latebris occultare velit, sed in Asiæ luce versari;' or c. 5, 'Imminent duo reges toti Asiæ;' or again c. 22, 'Difficile est in Asia, Cappadocia, Syria, &c.' As illustrated by Lempriere, these three passages, and hundreds of others, become altogether nonsense (a, b).

The following is the whole article on Galatia:—

'A country of Asia Minor between Phrygia, *the Euxine*, Cappadocia, and Bithynia. It received its name from the Gauls who migrated there *under Brennus some time after the sacking of Rome*.' We were not aware before that the Galatians at any point touched upon the Euxine: we thought they were an inland people; and we are somewhat inclined to suspect that our author fell in somewhere with the word 'Pontus,' which he translated the Euxine, instead of the kingdom so called. But a still more grievous error remains. If we compare the present article with what is written under the title Tectosages, it will appear that the author has confounded two persons no way connected except in name. The attack on Rome by Brennus took place about B. C. 390. Now the Gauls passed over into Asia about the year B. C. 278. But our Dictionary is as usual at variance with itself. Under the word Brennus, the two chiefs and the two dates are properly distinguished. It is also correctly stated there, that even the second Brennus died directly after the attack on Delphi, and consequently before the expedition into Asia.

We next turned to Ancyra, to see what account would be given of this celebrated town, and its still more celebrated inscriptions, commonly called the Monumentum Ancyranum. The whole article stands thus: 'Ancyræ, a town of Phrygia, Paus. i.' We find the usual confusion under *v.* Cappadocia. It is defined to be

'a country of Asia Minor between the Halys, the Euphrates, and the Euxine. When they (the inhabitants) were offered their freedom and independence by the Romans, they refused it, and begged of them a king, and they received Ariobarzanes. It can boast of the birth of the geographer Strabo, &c. . . . The kings of Cappadocia mostly bore the name of Ariarathes.'

The limits of Cappadocia here given are nearly, yet not quite, suited to the geography of Herodotus, but entirely inconsistent with the description of later writers. The following short quotation we take from Strabo, 12. 4:—

'Cappadocia (in the larger sense) was divided by the Persians into two satrapies, and so passed into the hands of the Macedonians. Under these, however, the two satrapies became kingdoms; one of which they called Cappadocia Proper, or Cappadocia near the Taurus, or lastly Great Cappadocia. The other they called Pontus, or Cappadocia on the Euxine.'

Now let us read once more the article of Lempriere. He commences with a definition which can only be applicable to the Herodotean Cappadocia. The story of Ariobarzanes belongs to the Cappadocia in the confined sense of later times.

Then he jumps back to the original extent when he claims for Cappadocia, Strabo, a native of Amasia in Pontus (a, b); and the concluding remark on the name Ariarathes brings us a second time to the more limited region. If by the side of such errors we were to place so trifling a matter as the mere omission of the city Amisus, we could not expect to catch the attention of our reader. The petty omission of a capital city would be lost sight of, just as the island of Lemnos, according to our author, is overshadowed by mount Athos.

We refrain from crossing the Euphrates into the difficult regions of eastern geography. If our author fails where all is clear and known, can we expect accuracy where deep and original investigations are required. Indeed we have already entered so fully into the geographical matter of this dictionary that we have room for little more on this head. Suffice it to state generally that what relates to Ægypt and Æthiopia, to Africa, Numidia, and Mauretania, &c., is fully worthy of all we have yet seen.*

Here then let us pause, and ask every schoolmaster in the United Kingdom, what knowledge of geography is to be obtained from Lempriere's classical dictionary? How many will subscribe to Dr. Butler's remark in the introduction to his Geography?

> 'To the learned author of the Classical Dictionary, the rising generation and their instructors owe so great obligations, that I can only say, I wish this little book of mine may be but one-tenth as much and as deservedly esteemed.'

In the arrangement which we adopted at the commencement of the present article, History formed the second division of our inquiry. History, however, divides itself into two branches, the history of countries and the history of individuals; or rather it is the same subject considered from two different points of view, and therefore disposed and arranged in different ways. The historian in the former sense traces the successes or misfortunes of some state, bringing forward different individuals, and again throwing them from our notice, just as they take a prominent part in the political movements of the day or again give way to others. It is a vice then inherent to history that we catch only unconnected views of an individual's life. He appears and disappears so

* The following may be taken as a sample:—

'Amilus or Amilus, a river of Mauritania, where the elephants go to wash themselves by moonshine' (a, b).

In the article Æthiopia no distinction is made between the curly-headed Æthiopians and those with straight hair, who are accurately distinguished by Herodotus; to whom, moreover, no reference is given under this head (a, b).

rapidly that we are often at a loss to determine his identity. It is here that we require the aid of the biographer. With him the individual is the main subject; and he presents us with perhaps a meagre but at any rate a connected account. There are some characters indeed, such as Alcibiades, Pericles, Pompey, and Cæsar, whose history is the history of their country during the time they lived. Thus a biographical dictionary is supplementary to the regular histories; and we may presume that every one who possesses the classical dictionary is at the same time provided with some continuous works on Grecian and Roman history. It is only where the latter fail him that he should have recourse to the former. Under this impression we shall select for examination, not the very foremost personages of history, but those who occupied a secondary, yet important rank. Nor indeed would the former enable us to form a fair estimate of the classical dictionary. It is almost impossible, for instance, to misstate the leading events in Cæsar's life, and none but the leading events can appear in such rapid outlines as the present work can admit. Yet even in these lives our author has contrived to cast an air of ridicule and suspicion over what is undoubted by throwing in a large proportion of childish anecdotes scraped together by Suetonius, Plutarch, Valerius Maximus, and other writers of that stamp. The very references to the authors at the end of each life enable a judicious reader to judge of their value. Thus at the end of the article 'Cæsar' we find the name of but a single contemporary writer, *viz*. Diodorus; and it is somewhat unfortunate that the part of his work which related to Cæsar's times no longer exists(a, b). But, as we said above, to form a true estimate of the work, we will select not such men as Cæsar, Pompey, Cato, Cicero, but those who hold a rank in political importance immediately next to these; and instead of picking up straggling errors we will at first confine ourselves to the single period when the above-mentioned persons lived. It will be found that almost every life is a tissue of nonsense. To begin with Bibulus, the following is the whole information furnished: 'A son of M. Calpurnius Bibulus by Portia, Cato's daughter. He was Cæsar's colleague in the consulship, but of no consequence in the state according to the distich mentioned by Sueton. in Jul. c. 20. "Non Bibulo," &c.—One of the friends of Horace bore that name, 1 Sat. 10, 86.' (a, b). Now Cato died B. C. 46, in the fifty-ninth year of his age; Cæsar and Bibulus were consuls B. C. 59. Hence it follows that Cato at the age of forty-six saw his grandson consul of Rome. We leave others to calculate

the age of the boy himself when thus appointed governor of the Roman world. But to be serious, the reader of course knows that Portia was the wife, not the mother of Bibulus. But even this error is trifling compared with that in the character given of Bibulus. With the exception of his father-in-law he was perhaps the most influential and certainly the most unflinching advocate of the oligarchic faction, never wavering in their support even though opposed by Pompey himself. Accordingly we find his name mixed up with all the proceedings of those most eventful times, till at last commanding Pompey's fleet in the Adriatic he fell a sacrifice to his excessive exertions. But our author as usual drew his information from an idle anecdote in Suetonius; he forgot the contemporary writers Cæsar and Cicero. As to Horace's friend named Bibulus, if it was worth while to notice him at all, it might have been observed that young Bibulus as well as Messala mentioned in the same passage were most probably old college friends of Horace, for we find (Cic. ad Att 12. 32) that two young men of family bearing those very names were about to enter the university of Athens with young Cicero in the year B. C. 45, the very time that Horace must have been there. Appian also (B. C. 4, 38) tells us that Messala and Bibulus attached themselves to Antony after the total failure of the oligarchs under Brutus.

Next turn to Lentulus Spinther: * 'A senator kindly used by Julius Cæsar' (b). These seven words constitute the whole article. To make up for this deficiency, we have in another part of the dictionary a second article headed Spinther* in which is given the anecdote reported both by Cæsar and Cicero of the leading men in Pompey's camp contending for the possession of Cæsar's appointments and gardens. The anecdote is very characteristic of the Pompeian party, and we were not sorry to find it; but why give it on the authority of Plutarch? and why omit in both articles to inform us that P. L. Spinther, in his consulship B. C. 57, was chiefly instrumental in effecting the recall of Cicero, that he was afterwards proconsul of Cilicia, and was honoured with a triumph on his return. L. Lentulus Crus, consul B. C. 49, when Cæsar was provoked to enter Italy with his troops, is often confounded by the schoolboy with the preceding. What does Lempriere say of him? 'L. Lentulus, a friend of Pompey, put to death in Africa' (b). Is observation necessary?

Domitius may be taken next: 'A Roman who revolted from Antony to Augustus. He was at the battle of Pharsalia,

* Both P. Lentulus Spinther and L. Lentulus Crus are altogether omitted by Mr. Anthon.

and forced Pompey to fight by the mere force of his ridicule' (b)*. As we are addressing our remarks to boys as much as their instructors, we make no apology for stating what must be familiar to the latter. The Domitius, or rather one of the two Domitii, confounded as usual in this article, we mean L. Dom. Ahenobarbus, the brother-in-law of Cato and consul B. C. 54, is not altogether an unimportant personage in the civil wars, to say nothing of his earlier life. He and Lentulus were the first to oppose Cæsar in his invasion of Italy. Betrayed by his own troops into the hands of the conqueror, he receives his liberty, and again raising a little army at his own expense he sustains a siege at Marseille. Escaping thence, we find him with Pompey in Macedonia, still the determined enemy of Cæsar, and finally he falls in the flight after the battle of Pharsalia. He is the subject of twenty-three of Cicero's letters, and a large part of Cæsar's civil wars. But upon all this our dictionary is silent; a ridiculous anecdote from Plutarch supplies the place. Cicero in his Philippics makes the death of Domitius one of the charges against Antony. But Lempriere was better informed. According to him, the Domitius, who was consul B. C. 32, and who the following year went over from Antony to Augustus just before the battle of Actium, was the identical Domitius whose death Cæsar and Cicero in their ignorance ascribe to the year B. C. 48.

Appius Claudius Pulcher, the colleague of L. Domitius in the consulship B. C. 54, the rapacious predecessor of Cicero in Cilicia, the rigid and hypocritical censor B. C. 50, by whom Sallust was expelled from the senate, may fairly claim some dozen lines in a biographical dictionary. The letters which Cicero wrote to him constitute a complete book in the miscellaneous correspondence. But not so much as his name is mentioned by Lempriere (a, b). Want of room is no excuse, when we find three articles (a, b.) devoted to the censor who gave name to the Via Appia, one under 'Appius,' a second under 'Claudius,' and a third under 'Appius Claudius;' not that he repeats the same matter under each of these three heads—on the contrary, the three passages have nothing in common, so that a stranger to Roman history would naturally infer that they treated of distinct personages.

On searching for the name Hortensius, we at first thought that it was altogether omitted, owing to a defect in the alphabetical arrangement; but eventually we found three articles all referring, though not so intended, to the same individual. He is first described as 'a celebrated orator,' &c.; then as a

* Mr. Anthon has struck this article out, but substituted nothing in place of it.

'rich Roman who asked the elder Cato his wife to procreate children, &c., *Plut. in Cat.*;' and lastly (a, b) as 'a Roman, the first who introduced the eating of peacocks at Rome. This was at the feast he gave when he was created Augur.' The singular anecdote about Cato's wife was perhaps worth three or four lines, as it marks a state of public opinion so widely differing from what now prevails. But such a lover of anecdote is our biographer, that the same story appears again under Cato, and again under Marcia; embellished, however, with some slight variations not very consistent with chronology. Cato the Censor (born B. C. 234) is said to have married Marcia, the daughter of Philippus (Consul, B. C. 56.) Plutarch adds that the husband was laughed at by Julius Cæsar, for prostituting her to his friend Hortensius. No wonder Lempriere concluded that the Hortensius thus accommodated must be a different person from the orator. The charitable would have hoped that the words Cato *the elder* were a mere slip; but, in the article v. Marcia, he is called Cato the Censor (a, b). The valuable peacock anecdote is a mere translation from Pliny; not that we accuse Lempriere of translating it, for had he seen the passage he would have seen his error. Pliny's words are these: 'Pavonem cibi gratia Romæ primus occidit *orator* Hortensius aditiali cœna sacerdotii.'

We will take the three following articles from the same period

'Vatinius, an intimate friend of Cicero, once distinguished for his enmity to the orator. He hated the people of Rome for their great vices and corruption, whence excessive hatred became proverbial in the words, *Vatinianum odium.—Catull.* 14. 3.' (a, b).

'Calenus, a lieutenant of Cæsar's army. After Cæsar's murder, he concealed some that had been proscribed by the triumvirs, and behaved with great honour to them.—*Plut. in Cæs.*' (a, b).

'C. Scribonius, son of Q. Curio, was tribune of the people, and an intimate friend of Cæsar (a). He saved Cæsar's life as he returned from the senate-house, after the debates concerning the punishments which ought to be inflicted on the adherents of Catiline. He killed himself in Africa.—*Flor.* 4. 2.—*Plut. in Pomp. et Cæs.* 49.—*Val. Max.* 9. 1.—*Lucan*, 4. 268.' (b).

We purposely add the authorities at the end of each, because the reader can judge of the value of the articles from them. Here, as everywhere else, all the contemporary authorities (except indeed Catullus) are omitted. Now the three names we have taken occur pretty frequently in the writings of Cicero and Cæsar, to say nothing of Dion Cassius and Appian. Had any of these four authorities been given, the diligent student might have drawn from the best

sources that information which is denied him in the compilations of Lempriere. He might have found that young Curio had some share in the events which led to the despotic power of Cæsar. He might have learned that Vatinius and Calenus were consuls together, B. C. 47, and have discovered the little fact that we still possess one of Cicero's orations against Vatinius; in which oration, moreover, he might have found abundant evidence of Cicero's regard for his 'intimate friend,' some delicate compliments for instance on his impiety, dishonesty, habit of lying, violence to his mother, witchcraft, &c., to say nothing of the remarks on his personal deformity. True, Cicero afterwards, with his habitual dishonesty, defended this same Vatinius; but the motives for undertaking this defence, as stated by Cicero himself (ad Div. I. 9), though decisive against the orator's character, certainly afford no evidence of any regard for Vatinius.

It is almost equally ridiculous to call Curio the intimate friend of Cæsar. From the first moment he appeared in public life to the consulship of Lentulus, B. C. 49, he was the furious opponent of Cæsar. In the course of that year he abandoned the party of the senate, and a few months after he killed himself in Africa. This it was to be the intimate friend of Cæsar.

Those who are not yet satisfied, may consult the articles Aulus* Gabinius (b), Piso the father-in-law of Julius Cæsar (a, b), Domitius Calvinus (a, b), Octavius the father of Augustus (a, b), Pomponia (a, b), &c., and they may endeavour to determine the relationship of the Emperor Augustus to his predecessor from the five articles, Accia, Actia, Actia (bis), Atia, and Augustus (a, b). Hitherto we have passed in review only a particular period of ancient history. That period, however, has been selected first for its importance, and secondly because the history of those times, being given by contemporary writers, presents itself at once to the biographer without difficulty or confusion. But go to any period in the history of any ancient people, be it Greek, Asiatic, or Carthaginian, and there will be found the same abundant harvest of blunders. The articles under the word Archelaus afford a fair specimen of the work. The reader would do well to refer to the book itself; but if he has not an opportunity, the following extracts may serve his purpose:—

1. 'Archelaus, a name common to some kings of Cappadocia. One of these was conquered by Sylla for assisting Mithridates (a, b).' In the first place there was only one king of Cappadocia

* Mr. Anthon, and after him Mr. Barker, call him Gabinius *Aulus*.

named Archelaus; and secondly, the general who assisted, or rather commanded under Mithridates, was not king of Cappadocia, but the great-grandfather of the king.*

2 'A person of that name married Berenice, and made himself king of Egypt, &c.'

This Archelaus was the son of the general; but this of course is omitted by Lempriere (a, b).

3. 'A king of Macedonia . . . he patronized Euripides.' 4. A king of the Jews surnamed Herod. He married Glaphyre, daughter of Archelaus, king of *Macedonia* (a, b), and widow of his brother Alexander. *Cæsar* (b) banished him for his cruelties to Vienna, where he died.'

This Archelaus was *the son of Herod the Great*. At the death of Herod he became ethnarch of Judæa. His wife was the daughter, not of Archelaus the king of Macedonia, who had been out of the world nearly four centuries, but of Archelaus, the king of Cappadocia. Lastly, it was *Augustus* who banished him to Vienna. To return to our author:

5. 'A king of Lacedæmon (a, b).' 6. 'A general of Antigonus the younger (a, b). 7. A celebrated general of Mithridates against Sylla. Polyæn., 8. 8 (a, b).' [Observe the authority.] 8. 'The preceptor of Socrates (a, b). 9. A man set over Susa by Alexander (b). 10. A philosopher, who maintained that goats breathed through the ears (b). 11. A son of Electryon and Anaxo (b). Apollod. 2. 12. A Greek poet who wrote epigrams (b). 13. A sculptor of Priene in the age of Claudius (a, b). 14. A writer of Thrace (b).'

One is at a loss whether to admire more the contents of the several articles, or the lucid arrangement of them.

The chronological order observed in this work may be farther illustrated by turning to any (a, b) of the gentile names Cornelius, Claudius, Ælius, Valerius, Æmilius, &c. To take the last of these, the order (a, b) is as follows:—

'Æmilius.—1. A youth of Sybaris. 2. A tyrant of Sicily. 3. A youth who had a statue in the Capitol. 4. Lepidus, a triumvir with Octavius'' (*i. e.* Octavianus). '5. A poet of the Augustan age. 6. Scaurus flourished B. C. 100. 7. A poet in the age of Tiberius. 8 Sura, a writer on the Roman year. 9. Mamercus, who conquered the Fidenates. 10. Papinianus, in favour with the Emperor Severus. 11. A censor, B. C. 276. 12. Porcina, an elegant orator. 13. A governor of Egypt under Tiberius. 14. Regillus,

* Mr Clinton has made the king of Cappadocia grandson of the general against Sulla. The error is of course a mere accident, as the passage of Strabo referred to corrects it. But the correction of this slight error affords us an opportunity of thanking Mr. Clinton for what is perhaps the most valuable work on ancient history and literature that ever appeared in this country.

conquered the general of Antiochus. 15. Scaurus, fought against Jugurtha.'

We say nothing of the many important persons omitted, nothing of the insignificant names inserted. All we wish is to draw attention to the arrangement. But an inconsistent chronology runs through the whole book. Sometimes a date is referred to the birth of Christ, sometimes to the foundation of Rome, &c. Again sometimes the Varronian date for this era, sometimes a different system is adopted. The confusion that arises from these irregularities is endless.

But perhaps the most valuable part of a biographical dictionary is that connected with literature. We have only room for a few abridged specimens :—

'C. Lucilius, a Roman knight, born at *Aurunca*. He lived in the greatest intimacy with Scipio the *first* Africanus, and even attended him in his war against *Numantia*. He died at Naples in the forty-sixth year of his age, B. C. 103.'

Hence the first Africanus, who *died* B. C. 185, lived in the greatest intimacy with Lucilius, who was *born* B. C. 149.

'Terentius.—Scipio, the *elder* Africanus, and his friend Lælius, have been suspected, on account of their intimacy, of assisting the poet,' &c. (a, b).

Terence was born B. C. 195, and was therefore ten years of age when the said Scipio died.

'Aristophanes.—He lived in the age of Socrates, Demosthenes, and Euripides, B. C. 434,' &c. (a, b).

As well might it be said that a man lived in the age of Addison and Southey. Euripides was born B. C. 480, and Demosthenes B. C. 382.

'Antoninus.—There is extant a *Greek* Itinerary, which some have attributed to the Emperor Antoninus (a, b).'

Our copy of this work is in the Latin language.

'Memnon, a man who wrote a History of Heraclea in Pontus, in the age of Augustus (b)*.'

How many words would it have taken to mention that there yet exists a considerable extract from this history, which is of some importance for the history of Mithridates and his predecessors? But our author (a, b) could not have known it, or he would have referred to the Bibliotheca of Photius, under the articles Mithridates and Heraclea.

'Ovidius.—His Fasti were divided into twelve books, but of these six have perished (a, b).'

Is there any authority for asserting that Ovid ever wrote more than the six which we possess?

* Altogether omitted by Mr. Anthon.

'L Annæus Seneca was born about 6 B. C. He was carried into a stove, and suffocated, in the sixty-fifth year of the Christian era, in his *fifty-third* year. . . The desire of recommending himself and his writings to the world obliged him too often—*to sink into obscurity* (a, b).'

'Pausanias.—Wrote a *History* of Greece in the *Ionic* dialect,' &c. (a, b).

As much Ionic as Diodorus Siculus.

'Varro —De Lingua Latina, in five books, written in his eightieth year, and dedicated to the orator Cicero. . . He died B. C. 28, in the eighty-eighth year of his age In the civil wars he was taken by Cæsar and proscribed, but he escaped,' &c.

We gather from the above that the treatise De Lingua Latina was written B. C. 36; but at this period Cicero had been dead seven years. What is meant by a person being taken and then proscribed it is difficult to say. In modern times it is not customary to arrest a man and then offer a reward for his apprehension. The truth is, Cæsar never proscribed him at all; as indeed he never proscribed any one. On the contrary, the conqueror, with his usual generosity, gave him his liberty, and soon after employed him in collecting a public library, an office for which the variety of his literary attainments particularly qualified him It was after the death of Cæsar that he was proscribed by the triumvirs.

It is part of the plan of this work to give a list of the best editions. Of Horace, the only editions recommended are that of Basil, fol. 1580—Baxter's, edited by Gesner, 1752——that of Glasgow, 12mo. 1744. But of this department, it is enough to say that no edition of any author appears to have been added since the year 1792; and yet there have been thirteen editions of the Dictionary since that period.

The second stage of our journey is now complete, and we have entirely a new country opening before us. The part of the Dictionary upon which the greatest labour has been bestowed, is evidently that devoted to mythology. It is scarcely an exaggeration to say, that every fable in Apollodorus, Ovid, Hyginus, appears at length in these pages. Possibly our author wished to claim for his own work the character he gives to the Bibliotheca of Apollodorus. 'It is an abridged history of the gods and of the ancient heroes, of whose actions and genealogy it gives *a true and faithful account* (a, b).' Certain it is, that at least three parts of the whole book are set apart for mythology, in its most ludicrous form. With what judgment this large portion of the work has been executed, a few specimens will decide. In the article Danaides (which, with that of Danaus, occupies above one hundred lines), we have the fifty names of these damsels, and the fifty names of

their husbands, paired off in regular order, so as to fill twenty lines, which would form an excellent exercise for one of our spelling-books, thus,—'Amymone, Enceladus; Automate, Busiris,' &c. &c. &c.; 'Celena, Hixbius; Hyperia, Hippocoristes (a, b).' In the same diligent spirit there are given, under Nereides, first a catalogue of fifty nymphs. As Homer and Hesiod are unkind enough to disagree in the names, it was necessary to give the variations. Thus we are favoured with fifteen more. This is followed by another batch of sixteen from Apollodorus; and, finally, the rear is brought up by a corps of stragglers, also sixteen in number. On the whole, the effective force of the whole corps amounts to ninety-seven long-named Nereids (a, b). Yet, after all, the name of one of these nymphs seldom, perhaps, occupies more than an inch. The dignity of a goddess required a greater extent; and, accordingly, every Nereid, nay every Danaid, has a separate establishment of her own. Thus the book is thickly studded with interesting articles of the following nature:—'Hippomedusa, one of the Danaides—Apollod. Dioxippe, one of the Danaides—Apollod. 2, 1. Lysianassa, one of the Nereids—Apollod. 1, 2. Janira, one of the Nereids (b).' The fifty daughters of Thespius, the Oceanides, the Centaurs—all the ladies who fell victims to the violence or seductive charms of Hercules, Jupiter, Pan, &c. &c. &c., and the equally numerous offspring of those crimes—appear carefully inscribed in these useful pages. But above all we are bound to notice the gross obscenity pervading the mythological articles, and even the other parts of the book. Perhaps the error of the present day may be on the other side; but it is not a false delicacy to complain of what is found under Cornelius Gallus (b), Panopolis (a, b), Tiresias (a, b), Thespius (a, b), Hercules (a, b), Epona, &c. &c. Mr. Anthon, in the preface to his edition, speaks in very strong terms upon this subject. 'There seemed, indeed,' says he, 'to be a strange pruriency on the part of the author, and one totally irreconcileable with his sacred profession, to bring forward, upon many occasions, what should have remained covered with the mantle of oblivion,' &c. The personal attack upon the author we do not agree in, but we cordially join with Mr. A. in the condemnation of the book.

Of course those absurdities which we have traced through the geography and history appear also in this department. As a specimen of logic take the following:

'Anubis, an Egyptian deity, represented under the form of a man with the head of a dog, *because* he clothed himself in a sheep-skin (b).'

It cannot be worth while to enter deeply into the mythology

of Lempriere. We will merely observe that all the received nonsense of this nature seems to be faithfully given. The chronology and geography of the subject is of course wholly neglected. The polytheism of the Homeric age, and that prevailing at Rome in the age of Cicero, are to Lempriere one and the same.

But before we conclude we must supply an omission which we made in the second division of our review, and descend from Olympus to the lower walks of human biography.

'Amphistides, a man so naturally destitute of intellects that he seldom remembered that he had ever had a father. He wished to learn arithmetic, but never could comprehend beyond the number four (a, b).'

The history of the maidservant Philotis (a, b), the shoemaker Vatinius (a, b), the hairdresser Cinnamus (b), we can only refer to. The ladies of easy virtue occupy as large a share of the work as the Nereids themselves. Thus in the letter C alone, we find Collucia (b), Cluvia (b), Catia (b), Catiena (b), Carfinia (b), Calvia (b), Calvina (b); no doubt there are many more that we have passed over. The history of their lives is soon told:

'Collucia, a lascivious woman, Juv. Cluvia, a noted debauchee, Juv. Catia, an immodest woman, Hor. Catiena, a courtezan, Juv., &c.'

But above all we are indebted to our author for a very accurate account of the killed and wounded in the various battles of the Æneid. When we read of Euryalus bringing to the ground

'multam sine nomine plebem;
Fadumque (b), Herbesumque subit, Rhœtumque Abarimque (b);'

or of Turnus taking his revenge on

'Alcandrumque (b) Haliumque Noemonaque Prytanimque (b)—'

it is gratifying to find in our dictionary seven out of the above nine carefully and correctly reported as slain by Euryalus or Turnus. The omission of Herbessus and Noemon was no doubt unintentional, as our author professes to give a copious account of all the proper names mentioned in ancient authors.

Proper names, too, our author rightly considered, are not proper to man alone. With a truly philosophic feeling that embraces the whole animal creation, he presents us with the biography of the following members of the canine race: Mera (a, b) (again under Moera), Hylactor (a, b), Hylax (b), Asbolus (b), Peritas, &c. The horses are not quite as nume-

rous: Cyllarus (a,b), Balius (b), Xanthus (b), Rhœbus (a,b), Cycnus (b), &c. And to avoid all suspicion of undue partiality for a particular division of the zoological world, he has added to the list one elephant and one jackass (a, b); and what materially increases the interest of the two last articles, the quadrupeds bore the same name. One is disposed to believe, and it would be a point of most interesting archæological research to prove, that the jackass received the appellation of Nico from his big predecessor.

We have now done, we trust for ever, with the original edition of Lempriere's Classical Dictionary. We shall not qualify our condemnation of it; for it would be utterly impossible to mention any one fact so disgraceful to the character of classical instruction in this country, as that some thirty thousand copies at least of such a work should have been printed and sold.

Public attention was first drawn to the real merits of this dictionary in the fifth American edition, corrected and improved by Charles Anthon, Adjunct Professor of Languages and Ancient Geography in New York. The motives that led him to correct the work are stated by himself in his preface: 'Having had frequent occasion,' says he, 'to refer the young student to the pages of Lempriere, I was often startled by the strange answers which a perusal of the work led him to give to questions that had been proposed, &c.' Accordingly he undertook to send forth to the world a new edition of the dictionary. This corrected edition, however, was disfigured with typographical errors to a degree unknown to the press of this country; and it may be doubted whether the errors thence arising did not more than compensate for the improvements. In the sixth edition more attention is said to have been given to the correction of the press. The additions that have been made in all exceed four thousand; and many of these are so extensive, that perhaps an eighth part of the American edition is from the pen of Mr. Anthon. The Professor himself refers, in his second preface, to those articles upon which he has bestowed the most labour. We propose to make a few selections, chiefly from those to which our attention is thus pointed.

The article on the Mediterranean, which, in the original contains twenty-five lines, has received from Mr. Anthon's pen an addition of one hundred and ninety-five others which begin thus:

'According to the learned Buffon, the Mediterranean Sea was originally a lake of small extent, and had received in remote ages a

sudden and prodigious increase at the time when the Black Sea opened a passage for itself through the Bosphorus, and at that period when the sinking of the land which united Europe to Africa, in the part that is now the straits of Gibraltar, permitted the water of the ocean to rush in. It was also his opinion that most of the islands of the Mediterranean made part of the continent, before the great convulsions that have taken place in that quarter, &c.'

At the end of the same article we have the following:

'The Greeks termed the continent of Africa Libya, and the wind which blows from that quarter they designated by the name of Lips. May not the root of both these terms be the older Greek form λίπω to leave, and Libya hence denote the country left by the waves, the ancient bed of an ocean subsequently dried up or removed? &c.'

Under the head 'Lectonia' we have about seventy more lines connected with a branch of the same theory; where one of the arguments brought forward is founded upon a resemblance between Lycaonia and Lectonia.

The real secret of all this is, that Mr. Anthon is a German scholar. He is captivated with the transcendental theories of the German school; and, altogether forgetting the object of the work which he is editing, he opens upon the unfortunate schoolboy a flood of learning which threatens to be as fatal to the lad's intellect, as ever was the disgorged Euxine Ocean to the land of Lectonia. We assure Mr. Anthon that we have a very great respect for the infant science of geology; nor should we at all object to its introduction into an elementary work on geography, within certain reasonable limits; but those limits would bear a very small proportion to the demands of Mr. Anthon; and the geology would not be the geology of the learned Buffon.

With equal want of judgment he has inserted an article of nearly *five hundred lines* on the Pelasgi, in which are given, not one, but three contending theories on this subject, from different German writers. We shall quote two short passages:—

'The Pelasgi evidently were a colony or race of this kind, (priests); 'and their very name, Raseni or Tyrseni, especially the two last syllables, seni, connects them in a manner with the Sindi, or people of India, &c.' Again; 'According to the ingenious hypothesis of Hirt (Geschichte der Baukunst bey den Alten), 'the first species of walls were named Cyclopian, because the Pelasgi constructed them by means of a caste of miners. When persons employed in mining enter the bowels of the earth, the lamp which they carry with them, to light them on their way, may be regarded as their only eye; and hence the fable of the single eye of the Cyclops.'

But *v.* Cyclops, we have another equally satisfactory explanation of this fable:

'The God of Olympus, in the act of discharging his bolts, would be pictured to their minds, by a rude though natural image, as closing one of his eyes for the purpose of taking a more effectual aim: hence the fable.'

Mr. A. forgets that he is making the God of Olympus himself a Cyclops.

To Lempriere's article on Hera, 'the name of Juno among the Greeks,' Mr. Anthon attaches this appendix: 'The name is commonly derived from ἀηρ, by *metathesis* ἡρα. Damm, however, makes it come from the same root as the Greek ἡρως hero, namely, from ἀρα, *votum, res admiranda.*' If the object had been to bring etymology into disrepute, this article seems well calculated for the purpose; but as we look upon sober etymology as a most powerful aid in philological researches, we are the more called upon to protest against such a misapplication as the present. In the article Melita, ninety lines are employed in a discussion about St. Paul's shipwreck. Under *v.* Hercules, there is an appendix to the original article, which gives, at an expense of one hundred and fifty lines, Dupuis' theory, that the labours of Hercules are allegorical representations of the sun's course through the signs of the zodiac. At the tail of the original article *Roma,* Mr. A. gives his ideas on the origin of the immortal city, *seven hundred lines* being devoted to that one subject. In short, whenever a theory falls in the Professor's way, it is sure to meet with protection. The articles Hyperborei, one hundred and fifty lines; Iones, one hundred and twenty; Græcia, three hundred; Eleusinia and Eleusis, four hundred; the Decemviri, two hundred; Jupiter, four hundred and fifty; Plato, six hundred, &c., are additional instances of the outrageous prodigality, with which the pages of a schoolboy's classical dictionary are abandoned by our editor to subtile theories, some ludicrous in themselves, and all, if ever so reasonable, still wholly unsuited to a young student.

In our last number a remark was made upon an error, as to the value and figure of the gold Daric, which appears in Dr. Belfour's edition of the Anabasis. This error is perhaps to be traced to Mr. Anthon, whose remarks upon this coin, filling sixty lines, contain both the mistakes. He gives indeed M. Gosselin's valuation at 28½ francs, but attaches little importance to it. If the data for determining the value of this coin are its weight and the quality of the gold, no one had better opportunities of deciding the question than M. Gosselin.

At the same time, however, that we point out so much that is worse than useless in the additions made by Anthon, it would be unfair not to state distinctly that a considerable part of the alterations in the geographical department are great improvements upon the original. The larger portion of these changes have been drawn from the geography of Mannert; and though we are not great admirers of this writer, it is certain that he is incomparably more to be depended upon, than the sources, whatever they were, to which Dr. Lempriere had recourse. Mr. Anthon has added much also to the value of his book by constant references to modern books of travels

But after all that can be said in favour of his edition of the Classical Dictionary, it yet remains true, that more than three-fourths of the book have still the Lempriere taint We are aware that he has freely thrown aside much of the original lumber to make room for his additional matter, still the great bulk of the book is as it was To avoid an unnecessary extension of this paper, we have gone a second time over the remarks which we had made above on the original work, and we have attached the initial letter of his name to all those articles, where the error has been retained by Mr Anthon. If the reader will cast his eye over these, he will find that the Dictionary, with all the alterations of the American editor (and a considerable portion * of these are sufficiently objectionable), is a work having little to recommend it. Mr. Anthon deserves much credit for his indefatigable perseverance; but his labour has been ill bestowed The truth is, Lempriere's Dictionary was a book past all correction, so irretrievably, so uniformly worthless, that to mix up with it anything of value was to throw so much away.

Any remarks upon Mr. Barker's edition are now almost superfluous; but in justice to Mr. Anthon it is right to observe, that this is not a mere reprint of the American edition. We stated above that Mr. A. had rejected much useless

* In the article Ennius, Mr. Anthon inserts the following: [born about A. U. C. 514, B. C 237, and flourished towards the close of the first Punic war] *i. e.* and flourished a few years before his birth. The Punic war terminated A. U. C. 513, Compare this with Lempriere's error in the same article.

Bructeri, a people of Germany [between the *Amisia* or *Ems*, and the Lacus Flevus or Zuyder Zee]. The words in italics should be Bructeri (Βρούκτεροι, Strabo,, Amisia and Ems (b).

Attica ... 'extent from N. W. to S. E. eighty miles, average breadth, forty miles' (b). The area of Attica then would be 3200 square miles, which is about four times the truth.

In the article Dacia, Aurelian is given as the successor of Trajan (b).

Lugdunum, Unum is said to be equivalent to the word hill (b); it should have been dunum.

lumber to make room for his alterations; this lumber has been very carefully, but not very judiciously, re-incorporated by Mr. Barker in conjunction with the American improvements; thus at the same time extending the bulk and diminishing the value of the work. The letter *b* attached to many of the names referred to in the preceding part of this paper, will enable the reader to compare Mr. Barker's edition with both the others. Where the letter *b* stands without the letter *a* in those remarks which apply to the original edition, it is to be understood that the passage of Lempriere rejected by Anthon has been again restored by the English editor.

But besides this variation from the American dictionary, there appears at the end of Mr. Barker's, an appendix of a very heterogeneous nature. It contains, for example, amid other matter, an extract from R. P. Knight's 'Inquiry into Symbolical Language,' Sir W. Jones's 'Essay on the Arts commonly called Imitative;' some remarks on Greek and Roman Music from Butler's 'Reminiscences.' The above are in English. The following in Latin: extract from 'Io. Ionsii Holsatii de Scriptoribus Historiæ Philosophiæ libri iv., Jenæ, 1716'; ditto, from a work entitled, 'De variis dicendi Generibus G. Heineccius, Lipsiæ, 1790'; ditto, from 'Mosheim de imitatione veterum, Hamburgi, 1760'; ditto, from 'Falsterus de Græcis veteribus latine doctis,' Amstel. 1731; ditto, from 'Veterum Criticorum Σημειώσεις,' Jenæ, 1687, &c. &c. We were going to enter our protest against the appearance of these last articles in a Latin dress; but on consideration this is a matter of small importance. It is pretty certain that no boy will ever read five lines of this appendix, and it is equally certain that little will be lost by the omission.

We conclude with remarking, that Mr. Barker has accentuated all the Greek words in the Dictionary.

Our inquiry has been fatiguing to ourselves, and we fear to our readers also; but we shall be satisfied if we succeed in driving Lempriere's Dictionary from the schools of this country. We sincerely declare our honest opinion of the three editions, when we say, that the original work is the worst book we ever met with; that Mr. Anthon's, with all its improvements, is bad enough; and that Mr. Barker's is considerably worse than Mr. Anthon's.

One more last word. We absolutely forgot the new edition just published in 4to., by the Rev. F. D. Lempriere. It is said to contain a notice of the finest ancient statues and busts,

to be dedicated (by permission) to the Bishop of Chester, and to cost 3*l*. 3*s*. The blunders of the original must look very pretty in the luxurious page of a three guinea quarto; but it is a luxury we must deny ourselves.

BELOE'S HERODOTUS.

Herodotus; translated by the Rev. William Beloe. *Reprinted in* 1830, *and edited by* A. J. Valpy, M.A., *with a Portrait* (*of the Author*). *And also reprinted by* Mr. Jones.

Die Geschichten des Herodotos ubersetzt von Friedrich Lange. *Zweite verbesserte Auflage*. Breslau, 1824. 2 vols. 8vo.

There are at present two series of translations of the best Greek and Latin authors in the course of publication, one by Mr Valpy, the other by Mr Jones of Finsbury Square Mr. Valpy's series, besides reprints of some of those English translations which are considered the best, will contain some new translations. It is much to be regretted that in an undertaking of this kind, which is so well calculated to be useful, the projectors did not determine to give new translations at least of *all* the Greek prose writers; for the old ones, though possessing various degrees of merit, are far below the present state of our knowledge. Translations of classical authors are works of art in which we may constantly improve, and the progress that we are daily making in Greek criticism and in the more exact study of antiquity, ought to be accompanied by a corresponding improvement in our translations. Within the last few years three new versions of Herodotus have appeared, which we only omit noticing at present, because it is not possible to examine well more than one book at a time, and also because Beloe's translation still retains its rank in public opinion. The circumstance of its being now reprinted by two persons at the same time, and commanding a very considerable sale, is an additional reason for examining into its merits.

Any translation of Herodotus, that has any claims to accuracy, when printed in a cheap form, will be a profitable mercantile speculation. In our colleges, and in the higher classes of our schools, such aids are constantly required by the mass of the students; and though in many places of instruction the use of a translation is classed among things forbidden, it must be reckoned also among things that cannot be prevented. And if we had good translations to put

into the hands of youth, we are most decidedly of opinion that their use ought to be *recommended*, as a means of aiding the student's progress by presenting him with the meaning of the author, and of raising the standard of morality by recommending that to be done openly which is now done in secret. A proper examination into each passage will soon enable a teacher to ascertain if the pupil is master of his lesson. We do not doubt that the publishers of the reprint of Beloe entertain exactly the same opinion that we do on the usefulness of translations to students, as they know very well who will be their customers; but though we approve most sincerely of their endeavours to promote classical knowledge, we think they are mistaken, in this particular instance, in the means which they have employed.

On opening Mr. Valpy's reprint we find the two following authorities quoted in favour of Mr. Beloe's translation.

'It would confer but small honour on Mr. Beloe to say that his translation is very superior to any which has made its appearance in our language. It is written in easy, perspicuous, and occasionally in elegant language.'—*Encyclopædia Metropolitana.*

'A very excellent work, with learned, useful, and amusing notes.'—*Bibliographical Miscellany.*

From these opinions we dissent entirely, and without any reservation, except one. We admit some of the notes, which are not Beloe's own, to be useful; we also allow that Beloe's remarks are occasionally amusing But no scholar, who is well acquainted with Herodotus, can read one single page of Beloe's translation without discovering many errors, nor without a feeling almost approaching to disgust, at finding the venerable father of history clothed in such a loose, ill-made, and slovenly dress.

The difficulty of giving this translation a fair examination consists not in the want of materials for fault-finding, but in the superabundance: we might begin with the first chapter of the first book and go on to the last of the ninth.

As a specimen of the manner of Mr. Beloe, and of the German translator whose work is noticed at the head of this article, we shall select a part of the story of Gyges and Candaules (Book I., chap. x.), which Herodotus has told with inimitable simplicity and delicacy.

'Gyges had no alternative but compliance. At the time of retiring to rest he accompanied Candaules to his chamber, and the queen soon afterwards appeared. He saw her enter and gradually disrobe herself. She approached the bed; and Gyges endeavoured to retire, but the queen saw and knew him. She instantly conceived her husband to be the cause of her disgrace, and determined

on revenge. She had the presence of mind to restrain the emotions of her wounded delicacy, and to seem entirely ignorant of what had happened; although among all the barbarian nations, and among the Lydians in particular, for a man to be seen naked even is deemed a matter of the greatest turpitude. The queen persevered in the strictest silence, and having instructed some confidential servants for the occasion, she sent in the morning for Gyges. He, not at all suspicious of the event, complied instantly with the message, as he was accustomed to do at other times, and appeared before his mistress. As soon as he came into her presence, she thus addressed him: Gyges, I submit two proposals to your choice; you must either destroy Candaules and take possession of me and the kingdom, or expect immediate death. Your unqualified obedience to your master may prompt you to be once again a spectator of what modesty forbids: the king has been the author of my disgrace, you also, in seeing me naked, have violated decorum; and it is necessary that one of you should die.'

The latter part of this is quite in the tragic vein; and reminds us of the mouthing of bad tragedy by a bad actor.

The following is the German translation of the same passage.

'Da er nun gar nicht ausweichen konnte, war er bereit. Kandaules aber, als er glaubte, es wäre zeit zum schlafengehen, führete den Gyges in das Gemach, und darauf war alsobald die Frau da Und Gyges sahe sie recht an, da sie herein kam und ihre kleider hinlegte. Und als die Frau ihm die Rücken zuwandte und nach dem bette zuging, schlich er sich hinaus und davon. Und die Frau sah ihm hinaus gehn Sie merkte aber, das ihr Mann dies angestifte, und schrie nicht auf, denn sie schämte sich, und that auch gar nicht als wenn sie es gemerket; nahm sich aber vor, Rache darum zu nehmen an dem Kandaules. Denn bei den Lydern, und fast bei allen andern Barbaren, schämet selber ein mann, wenn man ihn nacket sieht. Damals also war sie ganz ruhig und liess sich nichts merken. Aber sobald es Tag ward, hielt sie bereit die Diener, die ihr am ergebensten waren, und liess den Gyges rufen. Er dachte, sie wüsste nichts von der Geschichte, und kam sogleich. Denn auch vordem war er gewohnt zu kommen, wenn ihn die Frau rufen liess. Und als Gyges erschienen, sprach die Königin also: Hier sind zwei Wegen, Gyges, und ich lasse dir das wahl, welchen du gehen willst. Entweder du tödtest den Kandaules, und nimmst mich samt dem Königreich der Lyder, oder du bist hier gleich auf der Stelle des Todes, auf dass du nicht dem Kandaules in allem zu willen bist und in zukunft siehest, was du nicht sehen sollst. Also entweder er muss sterben, der Solches angegeben, oder du, der du mich nacket gesehn, und gethan hast das sich nicht [illegible].'

The simplicity and accuracy of the German translation form a striking contrast with the verbiage and [illegible] of Beloe. From the former it may be [illegible] that both

the German student of Greek may derive real assistance, and he who is not a scholar may yet have the satisfaction of possessing as faithful a copy of Herodotus as can be made in a modern language. As our general objections to Beloe's translation are quite independent of the *particular* errors, some of which we shall presently point out, and as the passage selected is in our opinion a fair specimen of his style, we shall enable our readers, who are not Greek scholars, to form a judgment for themselves, by giving them an English translation which contains neither more nor less than the meaning of the original.

'Now Gyges, as he found it impossible to decline the proposal, was ready to obey. The king accordingly, when he thought it was about bed-time, took Gyges to the chamber; and shortly after his wife also came. After she had entered, Gyges saw her undress; and when her back was turned to him as she was going towards the bed, he contrived to steal out of the chamber, but she saw him as he was going out; yet she did not shriek out, though she felt ashamed, but pretended not to notice it, being determined to be avenged on her husband, whom she knew to be the author of this plot. For among the Lydians, and indeed among the Barbari generally, even a man is very much ashamed to be seen naked.

'At the time, then, she kept perfectly silent, taking no notice at all of the affair. But at day-break, after ordering her most trusty slaves to be in readiness, she sent for Gyges, who came, not at all suspecting that she knew what had happened: for he was in the habit of going to her whenever she sent for him. And when he came, the wife of Candaules addressed him thus: "Here are two roads before you, Gyges, and you may choose which you please. You must either kill Candaules, and then you may have me and the kingdom of the Lydians; or you must yourself die on this very spot, to prevent you from complying with all the humours of Candaules, and from seeing again what you ought not to see. Now, then, either he must die who was the contriver of the scheme, or you who saw me naked, and have violated the usages of our country."'

We shall now proceed to notice a variety of errors in translation, which would mislead a Greek student who should take this book as a guide; and then we shall make remarks on some important passages, relating to the geographical notions of Herodotus, by which readers not acquainted with Greek have been misled.

I., chap. 20. Δελφῶν οἶδα . . . ἀκούσας is translated, 'I was informed at Delphi.' It should be 'by the Delphi;' by which term a people is designated.

I., chap. 25. The large silver vase that Alyattes presented to the temple of the Delphi is called a 'goblet,' and

the iron stand on which it rested is called a 'saucer;' while the art of welding iron, which Glaucus of Chios is said to have invented, is explained to be the 'art of inlaying iron.'

But this is surpassed by the next chapter, in which we are told that the people of Ephesus connected 'by some *ligature* their wall to the temple of the goddess *Minerva*.' The truth is, they did tie one end of a rope to the wall of their city, and the other end to the temple of *Artemis*, seven stadia distant, with the hope of putting their city under the protection of the temple. But on turning to the edition of Beloe printed in 1821, we find that, instead of this arterial ligature of Mr. Valpy's edition, the plain word rope is used: we shall make some further remarks on this. We pass over many errors, some of a trifling nature, such as 'Abas' for 'Abæ,' (chap. 46), 'the Pythian' for the 'Pythia,' &c., to the consideration of the 50th chapter, which is very badly translated. Here we have a story of Crœsus making a lion of pure gold to present to the god of the Delphi: he made also one hundred and seventeen pieces of metal to support it as a pedestal, and Herodotus calls them 'half bricks,' or 'half tiles,' because their breadth was one half of their length. Beloe says, 'the larger of these were six palms long, the smaller three;' which is not the meaning. Beloe has also retained the MS. reading τρία ἡμιτάλαντα, 'one talent and a half,' the weight of the pure gold tiles; while the baser metal tiles which were of the same size, weighed each two talents. For τρία ἡμιτάλαντα the critics now read τρίτον ἡμιτάλαντον, 'two talents and a half,' which correction if the editor (Mr. Valpy) did not choose to adopt, he ought at least to have mentioned in a note.

In the next chapter the two large vases, one gold and the other silver, which Crœsus sent to Delphi, are called 'cisterns,' the Greek word (κρητὴρ) being the same that is translated in chap. 25, by the word 'goblet.' But a little further, for the sake of variety we may suppose, these same cisterns are again turned into 'goblets.'

I., chap. 56, has not escaped entirely from the translator's pen. He calls Dorus, 'the son of Hellenos,' instead of the son of 'Hellen;' and he says that the Hellenic nation in the course of their wanderings, 'fixed themselves *in Macednum*, near Mount Pindus.' Herodotus says, 'the nation was called Macednon, while they lived on and near the range of Pindus. A fragment of a MS. of Herodotus in the British Museum has the reading Μακεδὸν, which is not noticed among the various readings of any of the other MSS., though from the slightness of the variation it may have been easily overlooked.

On chap. 72 we find a note from Larcher, on which, as it is inserted in the reprint of the translation, we shall make a remark. Herodotus estimates the breadth of Asia Minor from the point opposite Cyprus to the nearest point on the Euxine, at five days' journey, or 1000 stadia, a monstrous error, the distance being at least 270 geographical miles in a straight line. Scymnus Chios (Frag. Asia, l. 192.) makes the same distance seven days' journey, and has a remark on the ignorance of Herodotus. Larcher says that Scymnus perhaps estimated the day's journey at 150 stadia, and as Herodotus estimated it at 200, the difference in the whole result will only be 50 stadia, 'a difference too small to put any one out of temper with our historian.' There is no occasion to be out of temper about the matter with any body; but if we must quarrel with some one, it is with the editor who prints such a note at the present day, when it is well known that there is an error of near 200 miles in the calculation of Herodotus. Niebuhr, in an essay on the geography of Herodotus, which we shall presently refer to, suggests a solution of the error; but in our opinion Herodotus had no means of exact knowledge, and consequently his statement is incorrect.

The errors in Beloe, which a person acquainted with the Greek language will discover, are so numerous that it is wearisome to point them out; many of them, it is true, would cause no kind of inconvenience to the general, that is, the careless reader, but they offend those who love accuracy, which is only another name for truth. In chap. 92, Herodotus is speaking of the magnificent presents of the superstitious Crœsus to various temples of Europe and Asia. Some of these remained to the time of the historian, in Delphi, Thebes, and Ephesus: 'he presented also,' the translator goes on to say, '*as it appears*, to the Milesian Branchidæ, gifts, &c.' 'As it appears:' What does this mean? It means nothing at all; but the original is, 'as I have heard,' which is used with propriety, because the temple of the Branchidæ was pillaged and burnt by the Persians before Herodotus was born. The other temples, and their votive offerings in them, he had *seen*.

In chap. 174, we find an attempt to explain the meaning of Herodotus about the Cnidian peninsula. The whole passage is misinterpreted, and conveys no precise idea: 'The whole of this country, except the Bybassian peninsula, is surrounded with water.' If there is any meaning in this, it is that a peninsula and an isthmus are the same thing, which is proved by the following words; 'through this peninsula, which was

only five furlongs in extent (does extent mean length or breadth?), the Cnidians endeavoured to make a passage.'

In chap. 178 there is a similar confusion of terms: Babylon 'is a perfect square: each side, *by every approach*, is in length 120 furlongs; the *space occupied* by the whole is 480 furlongs.' In a matter so simple as this, it is hardly credible, unless we had it before our eyes, that so bad a translation could be made. 'By every approach' is added to make that obscure which is perfectly clear; and *space occupied* is a new way of translating the Greek words that mean the 'circuit of the city.'

From chap. 181, we shall extract a small portion of the description of the temple of Belus, giving at the same time the correct version.

'The temple of *Jupiter Belus* occupies the other division of the city, whose huge gates of brass may still be seen. It is a square building, each side of which is of the length of two furlongs. In the midst a tower rises of the solid depth and height of one furlong, on which resting as a base, seven other turrets are built in regular succession.'

The blunders of some people furnish as much matter for discussion as the ingenious discoveries of others. Herodotus does not say that 'the huge gates of brass may still be seen.' He says that the temple was large and had gates of brass, and that it existed in his time. But this is a trifle compared with what follows. A person who wishes to construct the temple of Belus, according to Beloe, must first of all make a tower 'of the solid *depth* and *height* of one furlong.' This means that it must be one furlong in height, but how much more is intended by the words 'solid depth,' it is very difficult to say. Mr. Beloe no doubt must have been startled at the prodigious height of his temple, especially as he had constructed only one story, and seven more remained to be built upon it. He therefore merely puts upon it 'seven other *turrets* in regular succession,' though Herodotus describes these turrets by the same word (πύργος) that he applies to that which forms the base. To show the absurdity of Beloe's translation, it is only necessary to give the true meaning: 'In the middle of the sacred inclosure a solid tower is built, which is a stadium both in its length and breadth,' (he says nothing about its height,) 'and upon this another tower is placed, and another on that, and so on to the number of eight towers.'

It is not without reason that we notice this absurd translation, for it has caused difficulties to those who have explored and written on Babylonian antiquities, as may be seen by referring to Rich's 'Memoirs on Babylon.'

Major Rennell (p. 360), after quoting Beloe's translation, and making some appropriate remarks on the monstrosity of this tower of Beloe, adds: 'Surely Herodotus wrote breadth and *length*, and not breadth and *height*.' No doubt he did; and this short statement may serve to show how much better it is to have a reasonable share of common sense than a smattering of Greek. Major Rennell, with great modesty, assigns some share of 'whatever praise his work may deserve' to Beloe's translation, as he followed it principally; and Beloe takes care to remind us in his preface, that his translation gave rise to the 'Geography of Herodotus.' This is the only merit the translation has. And that truth may be stated and the memory of the truly learned may not be mingled with the blunders of the pretender, we affirm, that Major Rennell only misunderstood Herodotus where Beloe deceived him, and that frequently, as in the case of the tower, he found out the meaning of the author in spite of the translator.

These may suffice as specimens of what may be found in the first book; and if any reader will take the trouble to examine it carefully, he may find *many* more errors quite as bad. In the third book there is a curious mistake; Herodotus says (III. 18), that the table of the sun is daily covered with the flesh of all quadrupeds (πάντων τῶν τετραπόδων), which Beloe translates, 'a plain in the vicinity of the city was filled to the *height of four feet* with the roasted flesh of all kinds of animals.' The French translation is 'd'animaux à quatre pieds:'—could a mistranslation of this be the origin of the error?

We shall now examine some passages of a different kind, where error is more excusable on account of their greater difficulty, but where accuracy is, however, absolutely essential. We refer to such passages as those in which Herodotus describes the figure of the world according to his notions, or makes remarks on the courses of rivers, sites of cities, and other matters that belong to a description of the earth. And though we doubt not that it will be readily admitted, that accuracy of translation in such passages is indispensable, there are some reasons for it which may not have presented themselves to all persons. Herodotus is an author who is constantly quoted or referred to by all travellers in the East who wish to give interest and value to their inquiries; he must be consulted by all who write specially on ancient geography and history, as well as by all map-makers whose object it is to illustrate comparative geography. That a translator of such an author should give the real meaning is absolutely essential, to prevent those who cannot read the

Greek text from being misled in their inquiries or conclusions. But Beloe's translation is grossly defective in accuracy in these important matters, and we shall show by a few particular examples what difficulties encumber a writer on ancient geography, who is obliged to depend upon it.

In the 17th chapter of the second book, Herodotus enumerates the different branches of the Nile, and nothing is easier than to draw a small scheme which shall represent his description. Beloe has, as usual in geographical description, misunderstood the passage, and has caused no small trouble to Major Rennell, who was too acute, however, to be imposed on entirely by the nonsense of the English version. Herodotus says, that the main stream of the Nile sends off two branches at Cercasorus, one branch, the western, flowing towards Canopus, and another, the eastern, flowing to Pelusium; but the branch, which he calls the straight one, is nothing more than the main stream of the Nile, which, he adds, when it comes to the apex of the Delta, goes on in a straight line, dividing the Delta into two equal parts; and this straight and continued course of the main stream takes the name of Sebennytic from the point where it leaves the apex of the Delta at Cercasorus. This is very plain and simple; but compare Beloe's translation: 'As far as the city *Cercasora* it (the Nile) proceeds in one undivided channel; but it then separates itself into three branches; that which directs itself towards the east is called the Pelusian mouth; the Canopic inclines to the west; the third, in one continued line, meets the point of the Delta, which, dividing in two, it finally pours into the sea.'

But what follows is much worse: 'and this (the third branch which he has just described) again divides itself into two branches,' the Saitic and Mendesian; both empty themselves into the sea — therefore the Sebennytic does not, though he has just said that it does. The simple meaning is, 'that besides the Pelusiac, Canopic, and Sebennytic branches, all of which reach the sea, there are two offsets from the stream of the Sebennytic, which also flow into the Mediterranean.'

One more blunder about the Nile, which shows a gross ignorance of Greek, must not be passed over. King Men, observing that the Nile a little above Memphis flowed along the base of the Libyan chain of hills, changed the course of the stream so as to make it flow in the valley at an equal distance from the Libyan and Arabian hills, (τὸν δὲ ποταμὸν ὀχετεῦσαι τὸ μέσον τῶν οὐρέων ῥέειν). But according to Beloe he did a greater feat than this: 'he led it (the river) by means

of a new canal through *the centre* of the mountains.' A note from Savary is appended on the supposed ancient course of the Nile near the Natron lakes, which, added to the translation, is such a mass of confusion, that it is impossible to say what was the meaning of Beloe. If any one should maintain that the translation, when fairly interpreted, particularly by contrasting it with the note, means not 'through the centre of the mountains,' but 'midway between them,' we reply, that the most that can be said for the translation is, that it is unintelligible, and that Major Rennell was misled by it, though he contrived to find out the meaning. But on comparing Mr. Valpy's edition with Beloe of 1821, we find in the latter this short note on the words, 'through the centre of the mountains.' '*Note.* Rather, *perhaps*, midway between the two chains of hills, or, in other words, through the middle of the valley. See Rennell, p. 494, *et seq.* T.' It appears then that Beloe *did* mistake the passage; and it appears also that the present editor, by omitting the short note, has made his edition less useful than the old one, which contains a partial correction of this marvellous error. But this is not all. In the original Beloe we find the note from Savary just alluded to, in which that wonder-creator says, 'The course of this ancient bed (of the Nile) may be traced across the desert by petrified wood, masts, &c., *the wrecks of vessels by which it was anciently navigated.*' Beloe, however, had sense enough to add another note, stating that Andreossi and Hornemann found that the shipmasts of Savary were merely petrified wood, not bearing any marks of the labour of man. This note, containing the correction of Savary's extravagance, the present editor has judged it expedient to omit; and as he retains Savary's note, the wonder now stands in the Family Classical Library in all its absurdity.

As we have condemned in general Beloe's translation, and particularly those parts which relate to geography, we shall confirm the sentence by reference to two other specimens. Herodotus (IV. 99) describes the figure of Scythia and part of the course of the Ister, according to his ideas. The chapter is one of acknowledged difficulty, and there may still be some discussion as to the course which Herodotus assigns to the Ister as it approaches the sea. But Beloe's translation of the first part of the chapter is entirely wrong, and he does not convey one single correct idea as to the form and position of Scythia, except that it is of a quadrilateral figure. There is a small treatise of Niebuhr on the geography of Herodotus (translated into English, Oxford), the object of which is not to ascertain what actual facts were the basis of Herodotus' notions, but to explain the ideas of the ancient historian,

and to enable a student to imagine for himself that figure of the earth's surface which the description of Herodotus supposes. The explanation of Niebuhr we believe to be correct, as it is given in the text and delineated in the map that accompanies the essay.

Again; the end of chap 101, book IV., is all confusion in Beloe. Herodotus, summing up at the end of his description, means to say as much as this: that two sides of this Scythian quadrilateral being washed by the sea, (the south-west by the Euxine and the south-east by the Palus Mæotis,) and the other two sides being bounded by the land, the length of each side of the square is 4000 stadia. Beloe says, 'Thus the extent of Scythia along *its sides* is 4000 stadia; and through the *midst of it inland* is 4000 more;' which, in plain truth, is downright nonsense.

It must be borne in mind, that the idea of Herodotus about the shape of Scythia is quite erroneous, and that therefore a modern map is not the thing, by the aid of which the student must labour to comprehend the meaning of the historian.

There is another passage in the fourth book which we shall endeavour to explain, as Niebuhr * has not done it completely. We allude to chapters 38, 39, 40, 41, in which Herodotus is speaking of the two great *actæ*.

An *acte* is a tract of land stretching outwards into the sea, and, of course, surrounded by water, except where it joins to the continent; at which point of junction it is not necessarily narrow, and therefore it is distinct from a chersonesus or peninsula. In chap. 37, Herodotus enumerates the nations that lie between the position occupied by the Persian Gulf (for which he has no name but Erythrean Sea, the Red Sea of Beloe, with the gulf-like form of which he was unacquainted) to Colchis. Here (chap. 38) begins one of his actæ, which is most simply determined thus:—it is that part of Asia which lies west of a line joining the mouth of the Phasis and the Myriandric bay. The second acte stretches out from Persia into the Erythrean Sea; and here it must be remembered that the Persian Gulf is not supposed to exist. The acte goes on to the Arabian Gulf and to its northern extremity, where it does not actually or *naturally* terminate (for an acte can only be limited by the sea), but usage† has fixed a kind of termination there, at the Isthmus which we call that of Suez. But Herodotus has only described *one* side of the acte—*another* remains to be de-

* The translation of Larcher seems to express the meaning correctly, but he has used the word 'peninsula,' which he ought not to have done.

† Οὐ λήγουσα εἰ μὴ νόμῳ, iv. 39.

scribed, there being two main sides, as in the case of the first acte. This second side then (of the second acte) commences at the Myriandric bay, runs along the coast of Phœnice, and terminates on the Mediterranean coast, opposite the head of the Red Sea. But this is only a conventional kind of termination, for the continuation of the acte is really the peninsula of Libya (chap. 41.); for he says (chap. 41.), 'Libya lies in the second acte, for Libya immediately follows Egypt. Now this acte is very narrow at the commencement of Egypt, for it is only one hundred thousand orgyiæ from the Mediterranean to the Red Sea; but, after this point, the acte, which is called Libya, becomes very broad.' If Beloe's translation be compared with this paraphrase, it will be seen that it does not give the meaning of the original. Libya, according to Herodotus, is but small when compared with Asia, and much less when compared with Europe. The actual breadth that he assigns to it is about sixteen thousand stadia, as may be ascertained, if a person will study well, and compare Book II. chap. 33, 31, 9. There is an error in Niebuhr's map, in the western part of Libya: the coast from Soloeis southwards should bend to the south and east, for Soloeis is the most western point of Libya. Thus, the Libya of Herodotus is brought within narrow limits, and its circumnavigation by the Phœnicians would appear to him a practicable thing. Had he known its real dimensions, *that* would have been a new difficulty added to the phenomenon of the sun's position to the north of the circumnavigators during their voyage. (See iv. 42.)

We shall add a short remark on a remark of Larcher, printed among the notes in Beloe's translation. Herodotus says that the breadth of the Isthmus of Suez is one hundred thousand orgyiæ, or ten thousand stadia, and Larcher adds that Agrippa, as quoted by Pliny, makes the distance one hundred and twenty-five Roman miles, reckoning eight stadia to a mile, from Pelusium to Arsinoe. This is quite true: Pliny turned the one thousand stadia into Roman miles, at the rate of eight for a mile, and the result is one hundred and twenty-five miles. But the result is not made true, because a blunder of one writer is copied by another; the real distance is not quite sixty geographical miles. Major Rennell shows (from II. 158) that Herodotus measured the breadth of the isthmus between the position of Suez and Mount Casius, which he supposed to lie in the same meridian, and hence originated an error, which is propagated in books of instruction even in the nineteenth century.

To conclude our remarks on Beloe's translation, we affirm

that a scholar can hardly examine a single chapter without detecting such errors as will convince him that the translator was a very indifferent Greek scholar. He will also discover that the meaning of the author is frequently so perverted, that a person, unacquainted with Greek, *must* be misled by it Who would suppose that the usage of οἵδε, so regular and almost invariable in Herodotus, *could* be misunderstood by a translator? But it *is* misunderstood; and in book III. chap. 97, which contains the conclusion of Darius' curious tribute list, the first part of the chapter is completely falsified.

It was not till we compared the reprint of Beloe with the original translation, that we were aware of any alterations having been made. We learn from an advertising page, stitched in one of the volumes, that Mr. Valpy is the printer and editor of the Family Classical Library. As the editor has not stated what he has done for this new edition, we are obliged to find it out as well as we can. The edition of Beloe, which we have compared with Mr Valpy's, is that of 1821, the latest, as far as we know.

We have not found any material error in Beloe's translation corrected, but there is a considerable number of verbal alterations made, particularly in the earlier books. For example, in the chapter which we selected as a specimen of Beloe's style, we find, in the original Beloe, this passage:—'Among the Lydians, in particular, it is deemed a matter of the greatest turpitude even for a man to be seen naked.' By turning to the extract which has been given, it will be evident that this passage has been spoiled by the editor*, who has removed the word 'even' to a wrong place. In III. 46, a 'leather sack' of Mr. Beloe's is changed by the editor, and changed for the worse, into a 'bread-basket.' A bread-basket is not so good as a bag for holding meal, the thing about which Herodotus is speaking.

There are many other verbal alterations, but not one that we have found which is an improvement. That there is not a single one, we will not affirm. Some passages of Herodotus, which are not quite appropriate for a family circle, are altered or suppressed, with which we can find no fault, as it is perfectly consistent with the title of the book. But still it is an inconvenience to those who wish to know the real meaning of Herodotus, when he speaks of certain national usages, or religious rites As examples of this alteration, we may cite I 226, II. 130, II. 102, I. 94, III. 101.

The edition of Beloe of 1821 is exceedingly incorrectly

* He may have printed from another and a worse edition of Beloe.

printed, particularly in the proper names, and in some names of plants, &c. A considerable number of these errors, indeed we may say nearly all, appear to be corrected by the latest editor; but yet such words as 'Abas' and 'Hellenus' are retained.

We believe there are no new notes in Mr. Valpy's edition, but we cannot be quite sure, because the editor has not informed us. Beloe printed a good many without any name attached to them; there are many in Mr. Valpy's edition, also, without names, but we cannot tell if there is any new one among them without reading the whole, which would be a great waste of time. Many of the notes of Beloe's edition are, however, omitted; and, in general, we think with great propriety; particularly the story of Archidice from Ælian (II. 135). It is true, there are some good notes attached to Beloe's translation; and when we state that many of them are extracts from Rennell, Larcher, or some respectable traveller, the assertion will be readily admitted. But it would be rather difficult to find a good original note by Beloe. His own remarks are puerile and trifling beyond measure.

When Herodotus describes (I. 93) the great sepulchral mound of Alyattes, near the lake Gygæa, Beloe remarks, 'This (the lake) still remains.' So does the lake of Geneva, mentioned by Cæsar.

Of the German translation we must add, that it is a very faithful and unadorned picture of the ancient historian, though not free from errors. In all the more difficult passages, the meaning is correctly given, and frequently in a quaint and simple style, which certainly does produce an effect very similar to that which arises from reading the original. The translator has accomplished this by attempting to imitate the manner of some of the elder German writers, and by occasionally using modes of expression not found in the ordinary written books of the present day.

Mr. Jones's reprint of Herodotus is a book in double columns, and as a specimen of typography is very beautiful. Though it is intended to be a family book, it does not omit any of those passages which Mr. Valpy takes pains either to suppress entirely, or to modify into decency. Mr. Jones, for example, keeps Beloe's note on Archidice, and also gives her a place in his index, which is that of Beloe, reprinted with its mistakes. Mr. Valpy has omitted the index.

The History of Herodotus, translated from the Greek. By Isaac Littlebury. A new edition corrected. Oxford and Cambridge. 1824.

This translation having been mentioned by Beloe in his preface, and reprinted a short time ago, and sold, as we are told in the title-page, by so many booksellers, deserves a notice; but a very short one is sufficient. As this is a corrected edition, we are not able to say what kind of a book the original was; but it may be safely asserted that, in its present condition, it is an exceedingly bad translation. It contains all, or nearly all, the blunders of Beloe, (except that about the table 'covered with meat to the height of four feet,') and also some that Beloe has avoided. It is printed in a single volume, without any notes, and without the usual convenient division into chapters. Altogether it is as useless a book as we are acquainted with.

To point out particular errors would be a waste of time. The reader may examine the translations of the following chapters, for specimens of the kind of mistakes that are found in Littlebury's version. Book I., chap. 57, is completely wrong; and also chaps. 180, 181, on the Tower of Belus, where, among other new things, we learn that the Euphrates flows into the 'Red Sea.' Beloe gives the same translation, but explains in a note what he means by the 'Red Sea.' Book II., chap. 97, the translation exactly reverses the meaning of the original. Book III., chap. 107, about the hare, is very imperfectly translated.

Histoire d'Hérodote, suivie de la Vie d'Homère. Nouvelle Traduction. Par A. F. Miot, Ancien Conseiller d'Etat. 3 tom. 8vo. Avec des notes. Paris. 1822.

It was the object of M. Miot to produce a version that should faithfully express the meaning of Herodotus, and avoid various errors into which Larcher and other translators had fallen. In the notes which he has subjoined to each book, he has had in view the explanation of the subject-matter only, there being hardly any notes, or at least very few, devoted to the critical explanation of the language. In the preface we are informed by the translator that he derived some aid from various remarks of Letronne, printed in the *Journal des Savans*; and it is apparently on this ground that some French catalogues proclaim the book to be a translation by Miot, with notes by Letronne. As we, among others, have been deceived by this trick, we mention it to put book-purchasers on their guard. The question is not, would the notes have been better or worse if M. Letronne had written them;

if he had written a commentary on Herodotus, we believe it would have been very good; but the fact is, the notes are by Miot, though advertised to be by Letronne in some catalogues. In the translation itself it is only fair to say, there appears no such attempt to deceive. The booksellers, however, have prefixed to the translation, by way of advertisement, a notice of it by Letronne, which originally appeared in the *Journal des Savans*.

M. Miot took the translation of Larcher, and the Latin version accompanying Schweighæuser's edition, as the basis of his new translation, deriving aid occasionally from the German version of Jacobi, and the English one of Beloe. How much real aid the last-mentioned would give, we hope to have already made apparent.

After examining M. Miot's version in a great many difficult passages, we are bound to say, that in most of them he has given the true meaning. The fact is, if he always kept close to his two principal guides, he could rarely fall into any great error. But there are mistakes, many of them it is true of small importance, which make us suspect that M. Miot has but an indifferent knowledge of the original, and that he would have made a very poor translation had he been left to his own resources. As examples, we refer to Book I., chap. 61, where Herodotus is speaking of the second marriage of Pisistratus:—'parce qu'il avait, avant ce mariage, deux fils encore jeunes, et qui étaient déjà regardés comme compris dans l'anathême porté contre les Alcmæonides,' &c. The two sons of Pisistratus were not affected by the religious ban under which the house of Alcmæon was: the meaning of the original is entirely perverted. Again, Book I., chap. 76, we find, 'Crésus . . . arriva dans cette partie de la Cappadoce que l'on nomme Ptérie; c'est une contrée d'un très-difficile accès, qui s'étend jusques à Sinope, ville située presque sur le Pont-Euxin.' The real translation is, 'Crœsus . . . came to that part of Cappadocia called Pteria. Now Pteria is the strongest place in this district, and it lies pretty nearly in a line with Sinope, a city on the Euxine.' In Book I., chap. 80, the same word κατὰ is again mistranslated, 'l'Hermus . . . a son embouchure près * de la ville de Phocée.' The Hermus has not its embouchure *near* the town of Phocæa; nor does Herodotus say that it has. Another signal blunder occurs in

* Schweighæuser translates κατὰ, juxta; and Math. Gr. Gr. § 581, gives this instance as an example of κατὰ signifying 'near, in the neighbourhood of.' This is not correct. Comp. Book I. 76, above referred to; II. 75, &c.: κατὰ in these passages is used to define the position of *one* place by correcting it with the position of some *other* place. Of course the most *conspicuous and the nearest* would be preferred. But *nearness* is quite a subordinate idea in this usage of κατά. Παρὰ means *close to* in Herodotus, IV. 90, &c.

Book I., chap. 93, where we are told of the great sepulchral mound of Alyattes, that—'un grand lac l'entoure.' M. Miot ought to know that the lake Gygæa does not *surround* the mound of Alyattes, which merely stands near it. (See Chandler, Asia Minor, p. 262;) still more, a translator of Herodotus should know the usage of the verb ἔχεται. We may remark once for all, that M. Miot's geographical notes are very few, and also of very little value.

We cannot avoid making a few remarks on Book I., chap. 143, a passage of some little difficulty, and entirely misunderstood by the French translator. Instead of pointing out all his errors, we shall give the real meaning of the passage, premising that we do not adhere to the common punctuation. The word οὗτοι, l. 5, does not refer to the Milesians and islanders, as Miot supposes, but to the word Ἴωνες, l. i., chap. 142:—

'Now these Ionians' (the twelve states of Asia) 'became separated from the rest of the Ionians in no other way than this: the whole Hellenic nation formerly being weak and inconsiderable, the Ionic division of it was by far the weakest; for except Athens, there was no city of any note among them. The rest of the Ionians then, and the Athenians, renounced the name, not liking to be called Ionians. But these twelve states were proud of this national appellation,' &c.

If the reader will take the pains to study this passage, he will see the importance of understanding it right.

We object also to the following translation of Φωκέες ἀποδάσμιοι (book I., chap. 146), as having no meaning in it: 'quelques Phocidiens détachés de leur patrie.' Beloe gets over the difficulty by translating it simply by the barbarous word 'Phocidians.'

The notes on Book I. fill about fifty pages, a space far from sufficient to allow a complete commentary, but still enough to illustrate many important passages. The author supposes (I. 57), that Herodotus is mistaken in denying that there was any similarity between the language of the Pelasgi of his day, and that of the Hellenes. And in this opinion we concur, believing that there is sufficient evidence even in Herodotus himself to disprove his opinion about the language of the Pelasgi. But we do not agree with M. Miot in deducing the name *Pelasgi*, from πάλαι, *old*, and γῆ, *earth*; nor do we think that discussions on the *origin* of the Pelasgi are of any value at all. To trace them as far back as we have any satisfactory evidence, is consistent with sound criticism: to attempt by guesses to advance beyond this limit is mere trifling.

There is a very good note on the θήλεα νόσος, which Herodotus mentions (I. 105) as common among the Scythians.

A few facts dispel much learned conjecture. M. Miot says, that the Enarees (for so historians call the miserable wretches who were struck with this disease) are those who had lost the most obvious characteristics of the male sex, such as the beard, and the strongly-marked masculine features, and in fact had assumed the appearance of withered old women. This disease, whatever may be its origin, is said still to occur occasionally among the Nogay Tartars. Another note, on chapter 199, appears to us to contain some very curious facts, and a just defence of Herodotus's account of the religious prostitutions enforced by the ecclesiastical code of Babylon. M. Miot shows that times comparatively modern furnish us with undoubted evidence of still more gross violations of decency, practised too under the sanction of a purer religion. We mark this short reference to this chapter of Herodotus, because some not very profound thinkers have either treated with contempt these curious notices of national usages, or have at once denied the truth of them altogether. We consider all facts relating to national customs to have a high value for those who, in studying the moral constitution of man, are accustomed to extend their view beyond the parish in which they happen to live.

M. Miot, in his note on I. 203, chimes in with most of the commentators in praising Herodotus for giving to the Caspian sea its true character of a lake, and assigning its relative length and breadth. But we may remark with Niebuhr that, though Herodotus has the merit of knowing that the Caspian sea had no connection with the northern ocean, yet there is no indication that he knew in which direction its length lay.

Before we conclude, we think we ought to do justice to M. Miot, by pointing out some other good notes, as we have censured his translation to a certain extent, and, as we believe, with perfect fairness. On the Egyptian year (II. 4,) M. Miot labours to show that the ancient Egyptians must have been very inexact observers of the heavenly phenomena, if they could not bring their civil year nearer to the truth than 365 days. Besides this, M. Miot attempts to show, and, as we believe, fairly, that the introduction of the Sothiac period of 1460 years, intended to rectify the error, which was annually accumulating, was not used before the Greek astronomers pointed out their miscalculation to the Egyptian priests. And even the Sothiac period was not a sufficient correction of the error.

In his remarks on the crocodile (II. 58,) M. Miot has contrasted with each important fact mentioned by Herodotus, the corresponding remarks and observations of M. Geoffroi, who accompanied the French expedition to Egypt, and had

opportunities of verifying what Herodotus has recorded about this amphibious animal. This appears to us to be an excellent mode of commenting on an ancient writer; and we do sincerely hope that in this country, where so much time is spent on what is called classical learning, we may at last begin to see that to know only the words of an author is to have a very imperfect acquaintance with him. As we are speaking of the second book of Herodotus, we cannot help remarking that in one passage (II. 182) the word Hellas is carelessly translated 'Grèce;' but what will the ordinary reader make of this passage when he finds Cyrene, Rhodes, and Samos comprehended under this term? These places were included in the Hellas of *Herodotus*, but not in *our* Greece.

On a passage of the third book we have a short remark to make, as the attempts at explanation which we have hitherto seen, are not satisfactory. Herodotus says (III. 104), that among the Indians the heat is greatest early in the morning, at noon it is less violent, and in the evening the atmosphere becomes very cool. Various solutions of this difficulty have been offered; but we think all of them erroneous. What Herodotus tells us is not a real fact, but a misconception founded on a prior one. According to his theory of the earth, it is a plain surface, extended in all directions, till it meets the heavens. The Indians in geographical position lie nearer to the rising sun than any other people that he knew; and in the morning they would consequently feel the effect of the sun's rays more powerfully than at noon and evening, when (according to the theory of Herodotus) he would be further removed from them.

We have chosen for our remarks these few passages as specimens of the way in which M. Miot has discussed some of the more important passages of Herodotus; and in our criticisms both on him and Beloe it will be observed that we have selected the first four books, which we have done on account of the greater difficulties which they contain. With the exception of some parts of the seventh book, the five last books of Herodotus present comparatively fewer difficulties than the first four.

Before taking leave of M. Miot, we must observe that he has entirely mistaken Herodotus's description of the figure of Scythia, and that he has not derived all the aid which he might, from Major Rennell's Geography, to which he [illegible] his readers a general reference in his preface. M. Miot has carefully marked by a dotted line in his map, what he conceives to be the Scythia of Herodotus, but which no one who understands the Greek will for a moment allow to be a correct delineation.

Chronological tables are affixed to each book. The dates frequently differ from those which we are inclined to prefer. For example, in the period contained in the 6th book we find the capture of Miletus placed in B. C. 498; the date now more commonly received being B. C. 495.

A map intended to illustrate the geography of Herodotus is found at the end of the third volume. The position of the different peoples, and the satrapy division of Darius are given according to Major Rennell's system; but the modern improvements in geography required, as we are told in a note on the map, considerable alterations to be made in the physical character of Rennell's maps. Great improvements, it is said, have been made about the Black Sea, the Lakes Van, and Urmia, &c, which we will not deny, not yet being able either to verify or to disprove the assertion. But we will venture to say, that a less founded claim to improvement in map-making has seldom been put forth. The whole of the country watered by the Tigris, Euphrates and the other great streams that flow into the Persian gulf, together with the gulf itself and all the country east of it, requires a complete reformation. We affirm the same of the coast of Africa immediately west of the Delta, which is altogether at variance with the latest charts. An examination into the geographical positions of the map would not induce us to change the opinions already expressed.

HISTORIA GRÆCA.

Herodoti Historiarum Lib. I. *Thucydidis De Bello Peloponnesiaco*, Lib. I. Lib. II. c. 1—7. *Xenophontis Historiæ Græcæ*, Lib. V. *Demosthenis Orationes Philippica I. Olynthiaca I (III.) Philippica II.* In usum Regiæ Scholæ Westmonasteriensis. 1830.

The above is the title of a single volume which we have lately seen. It contains a series of extracts from Greek authors, intended to furnish the students with specimens of the extant historical writers (for the orators also are historians) from the time of Herodotus to the age of Demosthenes. We believe that, till within the last few years, it has been the practice in our great schools to neglect the historians nearly altogether, confining the student principally to the reading of the poets, and the making of verses. The mechanical dexterity acquired in stringing together syllables called long and short, will seem to all sensible people but a poor accomplishment after so many years' labour, and a wretched substitute for real knowledge.

We are therefore exceedingly delighted to see that a Westminster student will now, in addition to the poets, acquire a very fair stock of prose Greek and historical knowledge during the school course. By combining with the study of the Greek text the perusal of some good compendium of Grecian history, he will form an exact estimate of the periods to which the extracts belong, and he will know also how much of an author he has read. And if to this should be added the constant use of good maps, and occasional remarks by the teacher himself on the history, geography, and the words of the text, we think a very great improvement will be made. Though we are much in favour of reading an entire author, or at least a very large portion, for reasons unnecessary now to state at length, yet we cannot find fault with this for being a book of mere extracts. It is not like the miserable compilation of Dalzel, a collection of scraps from writers of all ages, some good, and others good for very little, but it consists of entire large portions taken only from writers of the best period.

It is not stated (there being no preface to the book), what text has been chosen by the editor. On comparing however the first book of Thucydides with Bekker, we find that the Westminster book agrees with that text in the few difficult passages that we referred to. We presume therefore that the whole is founded on good authority. To each historical book is prefixed a summary or table of contents, which would be very useful if it were not in Latin. Boys generally do not take the trouble to read notes, or prefaces, or summaries, written in Latin not always easy to understand, and printed in a type and form disagreeable to the eye. And we think boys do quite right, being just as unwilling as they are to encounter such unnecessary trouble.

There are no notes at all to this book, which we consider a very great advantage. It is true, a note system is fast gaining ground, specious and attractive at first sight, but based on a principle which tends to destroy what little knowledge of Latin and Greek is left among us. It is not possible to give anything like a reasonable commentary on a Greek or Latin author in a few notes attached to the bottom of a page. A complete or even a very incomplete illustration of a classical author requires a separate volume, and often several; and what reason is there for encumbering the text book with notes, which are often worse than useless? Can they not be printed in a separate volume for the use of those who want them? If we had good commentaries in English on the authors generally read, schoolmasters would be furnished with the means of explaining the text to their pupils

in a more complete and consequently more attractive manner. But the small note system exercises a pernicious influence both on master and scholar; it gives them just enough to prevent them from looking for more, and the narrow bounds which the small note issuer fixes to inquiries both philological and historical become the limits which his disciples never pass.

For the pupil a few useful books of reference in English, some good maps, and a plain, *cheap*, and correct text without notes—this is all that *he* wants. As for the master, some good books of reference of a higher kind which he *ought* to study, and, if such a thing could be found, a commentary full and complete on the author that he is explaining—these are the storehouses from which he should draw that information, which it is his duty to communicate to the pupil *orally, briefly,* and *perspicuously*. Wherever text-books without notes are used by the pupil, the diligent teacher must and will look for that information which the pupil will and ought to expect. After the teacher has given the information, and referred the learner to books for the purpose of extending it, *then* he can fairly require of the pupil, that he should recollect the instruction that he has received, and prove, by his answers on examination, that he has not neglected to profit by his teacher's kindness and assiduity. Nothing is more preposterous than the tyranny of schoolmasters in expecting a pupil to come up to his lesson with a complete knowledge of all that is in it. When the scholar has made some progress, the master may reasonably expect that he should not stop at small difficulties; but when the pupil has done his best, there will always remain enough for the tutor to explain, and if he does not do so, he does not fulfil his duty.

But though improvement is rapidly making in some of our old and truly respectable schools, and new ones springing up around them furnish a fresh motive for active and honourable exertion, what is the condition of a large part of the countless number of public and private grammar-schools scattered over this wealthy country, and crowded round the neighbourhood of the metropolis? Those who have had opportunities of seeing into these places know well, that ignorance almost incredible directs many of them—not ignorance of such useful knowledge as geography, arithmetic, modern languages, or the natural sciences, for this knowledge is not expected from them—but the grossest ignorance of that which it has been the business of their master's life to learn and teach, the Latin and Greek languages. Could those parents, who entrust their hopeful sons to school, judge of

the commodity for which they pay, as well as they can of the substantial necessaries of life, the schoolmasters would soon find, that to secure their customers they must furnish a better article. In stating these opinions, which, as applicable to a very great number of schools, we know to be supported by facts, we would not, if we could avoid it, give pain to one single teacher who honestly endeavours to discharge his duty. Many of them labour earnestly and faithfully, and do the best they can; they do the best that can be done under the present circumstances A wise and a popular government, one that had a real sympathy with the people, would labour to promote the cause of education *in every degree;* for the higher kind of education calls for aid and assistance as well as the education of the poor. No real or extensive improvement will be made till men are trained to be teachers, and sent out after examination and probation with such a certificate as will secure people from being imposed on by unqualified persons. Such teachers would soon find employment, and their certificate would save them from the necessity of applying to a school agent, who, if he be a knave or a fool—no uncommon case—will cheat all parties, and himself be the only real gainer. The metropolis offers easy and ready means to the friends of education for forming a plan on an extensive scale for the instruction of persons who wish to become teachers; and we hope that this important subject may soon be taken up by those, who have sufficient influence to carry it into effect.

READING MADE EASY.

Infant Emancipation, or Reading made easy. London. 1830.

IT seems rather surprising, that no steps have been taken, long ere this, to facilitate what is commonly, but perhaps wrongly, reckoned as the very first step in elementary instruction—namely, learning to read. The question naturally occurs, Is the old method, on which we and our forefathers have been taught to spell our horn-books, the best adapted to accomplish its end, and incapable of any improvement? When we look back upon our childhood, is the retrospect of this branch of our education pleasing or otherwise? When ordinary troubles are over and known only in remembrance, they generally appear to have been exaggerated or too severely felt; but, as respects learning to read, we certainly in childhood found it to be a most arduous attainment, and we recollect it to have been the source of

continual sorrow and disgust; nor even now does the difficulty of the task sink much in our estimation, when we consider the preposterous method adopted in teaching children to read. Let us now look at children that are taught as we were: is the case different, and does the mind of a child, whose affections are so lively and perceptive faculties so actively in operation, leave his pastimes and address himself to his task with any feeling short of positive disgust? Is this as it should be? This, however, is not all. We would ask yet again—Is the progress made by pupils according to the received method, satisfactory or not? It is a notorious fact, that a year is reckoned a very short time for a child to gain even a tolerable proficiency in the rudiments of reading, and that many children are employed at this work for two or three years, and sometimes longer, before they can read their mother tongue correctly.

These statements having been made, for the truth of which an appeal is made to all candid persons, it remains for us to inquire, whether the present system is defective in itself, or whether the fault rests merely with those who apply it to practice. Much, indeed, of a child's progress will depend on the moral character of the teacher, and his fitness for the business of tuition. The dispositions of teachers vary. One may be kind and prepossessing in manners, and so exert a powerful influence over the child's will and affections; while another of less kindly nature is impatient and ill-humoured, and communicates all his unamiable feelings to his pupil, without possessing any useful influence over him. One sees the child, as he is, volatile and playful, —in short, a child; the other forgets the disparity of their years and intellect, and feels surprised and disappointed at what he calls the lad's stupidity, merely because himself is stupid enough to forget, that he has a child to teach and not a man. This, however, unless we except some few peculiarities of individual characters, is the extent of the evil as respects teachers; and these objections will apply to every branch of instruction as well as this. The real root of the evil complained of is to be found in the plan itself, which is neither *natural* nor *correct*. The common plan of teaching to read is not *natural*, because it is not adapted to the minds of children. It commences with unmeaning abstractions—sounds without ideas attached to them; and during the process no connexion is maintained, immediately or more remotely, with the concerns and objects which interest and delight the active mind of childhood. The plan in common use is not *correct*, because it does not give a true and distinct notion, nor indeed any precise notion at all, of the power of

letters and syllables. For instance, a child, after having been taught to recognise his letters at sight and to call them by their names, is taught, in his first lessons on the combination of the letters, that *bee-a* spells *ba*, *cee-a,—ka*, *dee-a,—da*, *eff-a,—fa*, &c., and, as he proceeds further, *bee-a-tee,—bat*, *cee-a-tee,—cat*, *eff-a-tee,—fat*, &c., until at length he learns that *dee-ar-i-en-ka* are all comprised in the single sound *drunk*. By this method, the *names* and *powers* of the letters are confounded, and much time is afterwards necessarily spent in unlearning the wrong notions acquired at the commencement. The fact is, the power of letters is generally very different from any notion which the mere name of them would give; for example, the *name* of the letter *w* has no more resemblance to its *sound* in such words as *wine*, *wet*, &c., than the name *John* has to any individual who bears it. This must be the case with nearly all the consonants; for it is impossible to pronounce them completely by themselves, but only when accompanied by a vowel sound. Every expiration with sound produces a vowel accompanied or not by the action of the organs of the mouth which produces the consonants.* The internal formation of the organs to produce a consonant will, except in a few cases, make no distinct sound; and the consonant sound is only distinctly perceived by the aid of the accompanying vowel sound. The consonant B, then, is not correctly represented, as regards its power, by BEE; for BEE represents more than B, namely, B and the vowels which follow it

It may, perhaps, be thought that the objections here urged to the common method of teaching to spell and read are far-fetched and hypercritical. Long habit may have consecrated the old usage; but still it is submitted that these remarks are practical. That the present method of teaching to read is a cause of much needless trouble and delay, may be satisfactorily proved to any one, who will for experiment take the pains to instruct one pupil by the means here proposed, viz. by always giving him *the power of the letters as found in words*, which are the matter of the language, and then making him acquainted with their *organic* formation; and lastly, if it shall then be found requisite, teaching the names of the letters. This way will be found clear, and free from the objections which are justly raised against the old plan.

The book entitled 'Infant Emancipation,' rather a pe-

* Teachers will find it very useful to have some knowledge of the physiology of Speech. This may be gained by a patient attention to the mode of pronouncing the letters. Some valuable remarks on this subject may be seen in a paper by Dr. Marshall Hall, *Journal of the Royal Institution of Great Britain*, No. 37, Vol. xix.

dantic name for a spelling-book, professes to be a development of the principle which has been briefly explained above. It would have been well, if the authoress had explained the details of her plan more at large for the benefit of teachers. Had she reflected how little trouble such persons usually take to think for themselves, she would have rendered the book more useful by giving with it some plain directions for using it, and by stating, where it is wanted, the reasons for the adoption of certain plans in the detail of her work. In the absence of such necessary information, it seems desirable that an attempt should be made to acquaint the reader with the contents of the book and plan of teaching proposed by its authoress.

A few short and simple words expressing ideas familiar to children (many of which might with advantage be exhibited *objectively* at the same time by the aid of drawings) form the opening lessons of the book. These are introduced in order to acquaint the children with the most elementary syllables which they contain; as *cat-at, man-an, brad-ad,* &c. The learner is thus not only taught the appearance of the whole word, but he becomes also acquainted with the *echo-syllable,* as it is called (as *at* in *cat*), and besides this, in most cases, with the appearance and *true sound* of the preceding single or complex consonant sounds which serve to make up the whole word. Very gradual advancement in the few first lessons, and constant repetition both of the *key-words* and *echo-syllables,* tend to fix permanently in the memory every particle of knowledge acquired; and the occasional promiscuous arrangement of the syllables which have been learnt (or, what would perhaps be better still, exercise in books accidentally opened for the purpose of discovering syllables) leads the pupil to detect them readily at sight wherever they occur. A few words and syllables having been thus thoroughly learnt, an addition is made to their number, and in a very short time all of the chief monosyllabic changes will have been gone through. An easy reading lesson, some simple-worded story for instance, is recommended at this stage, that the child may see by the facility with which he gets through it, the application and value of his past exertions, and thus be stimulated to exertion in surmounting future difficulties. The next step in the method is the process of abstraction. First, the echo-syllables, and then the simple letters are brought before him, and by frequent exercise he is made familiarly acquainted with the nature and power of each. A few lessons on the more complex pronunciation of united consonants, always with reference to their organic formation, follow those just mentioned. These lessons having

been patiently gone through, nearly all the difficulties of reading will have been overcome. All easy sentences will be read with very little trouble, while continual practice, and the occasional admonition of the teacher, will guide the child to the right pronunciation of the irregular syllables, such as *is*, pronounced *iz*, *to—too*, *one—wun*, the terminatives *tial—shal*, *tion—shon*, *ous—us*, &c. Lists of words containing silent or 'idle' letters, such as *gh* in *nigh*, *k—w* in *know*, *ugh* in *dough*, *w* in *wrap*, &c., are given, in order that they may be referred to and explained whenever they occur in reading. One reading lesson is given at the end of the book as a specimen of the manner in which the assistance is to be given by the teacher when difficulties occur either from irregularity or absence of power in letters. The child thus instructed will soon learn to enjoy what he reads, and his task will, we are told, and we believe it, be fully accomplished in the course of a few months.

There are defects in the book before us. The analysis and abstraction of syllables begins too soon, and the good old plan is too rigidly adhered to, of introducing the learner, at a very early period, to the *interesting* mysteries of *ban*, *bac*, *bab*, *baf*, *bam*, *bax*, &c. It seems, to us at least, more judicious to ground reading lessons on matter which is of itself interesting and likely to command attention. It appears quite possible (and certainly more pleasing both to teacher and child) to make such a piece as the Scripture story of 'Joseph and his brethren,' (which we recollect to have read as a story-book with great interest,) or some other little book, as, for instance, some of Mrs. Barbauld's or Trimmer's, or Miss Edgeworth's, the groundwork of instruction in reading, instead of the senseless syllables and unconnected and ill-arranged words which disfigure the book before us. We object also to the method adopted for the pronunciation of the consonants, *b* as the syllable *be* in French, when the *e* is mute, and so of the other consonants. We know no reason why the consonants should be known otherwise than with respect to their power in connexion with vowels in words. Some of them, as *s*, *r*, can be sounded alone almost, perhaps quite as completely, as a vowel; but properly, the consonant sounds are only learned in connexion with the vowel sounds.

Another and more serious objection to the book is, that it occasionally gives wrong views of etymology. No measure of expediency for the mere sake of sound can, it is presumed, justify the incorrect division of syllables. That etymological truth has been sacrificed in this respect cannot be doubted. Instance the following: *sa-vor*, *na-val*, *ad-mit-*

-*ting*, *des-troy*, *u-ni-ted*, *dis-per-sed*, &c. Such egregious blunders are common enough in the *valuable* compositions of Mavor, Vyse, and Pinnock; but something better is expected in a book which has justly higher claims on the attention of mothers and teachers. 'Infant Emancipation' is not without its faults, as it has been proved; but its principles are good, and with the exceptions above stated, they have been faithfully and judiciously applied to practice.

JACOTOT'S SYSTEM OF EDUCATION.

A Compendious Exposition of the Principles and Practice of Professor Jacotot's System of Education. By Joseph Payne. pp. 56. London.

The system of education established by M. Jacotot, Professor of the French language at the University of Louvain, called 'Universal Instruction,' and 'Intellectual Emancipation,' has been much talked of in this country, but yet more in France, the Netherlands, and Germany. It has found many advocates who have spared no pains to make its merits known, not only by exhibiting its principles and practical details, but also by most indiscriminating laudatory notices, accompanied by the most absurd panegyrics on him who is called its founder. Much has been written on the system, and among other explainers of it, M. Jacotot himself has sent forth three volumes to expound his doctrines to the world; but his book, it is to be feared, requires to be expounded itself,—for we have not yet met with any one that could understand it completely.

The system of Jacotot is unquestionably attracting great attention, and the subject is of an importance to demand some consideration. It will be observed that this article has for its object principally to notice some of the Jacotot *methods.* The Jacotot *course of studies* requires a separate examination. It is accordingly proposed to give some account of the method, as it is explained by an Englishman, (who, it is believed, went to Louvain and saw it in operation,) the first who has written a notice of it in a separate form. Mr. Payne, the writer of the pamphlet entitled 'A Compendious Exposition,' &c., writes in the spirit of advocacy, and does not always judge impartially of the merits and demerits of the system; and it will, therefore, be necessary, while we give a sort of analysis of his book, to make occasional strictures upon it, in order that the reader may have a *fair* view of the method described in it, neither too favourable, nor, it is hoped, too far on the contrary side.

Mr. Payne's book opens with an explanation of one of Ja-

cotot's principles (which, by the way, are reduced into sayings or proverbs continually uttered by the founder and his disciples), LEARN SOMETHING THOROUGHLY, AND REFER EVERY THING ELSE TO IT. 'This sentence,' says the English expositor, 'comprises the entire method of Jacotot,' and 'whenever this precept is neglected, the constitutional character of the system is disregarded. Again, 'the spirit of it so completely pervades every part of the machinery of the method, that the one cannot by any means be separated from the other.' The above precept is valuable, and we subscribe to its worth most willingly; but surely the *inventor* of this method does not claim any originality for this remark. It has been applied to practice, as Mr. Payne acknowledges, in p. 6 of his pamphlet, by every one who has ever learnt any science effectually. The merit of M. Jacotot consists in applying the principle more extensively, and the novelty of his plan, in this respect, appears the more forcibly from the very imperfect manner in which *any* knowledge is commonly acquired at school. Of the old system (the term is incorrect, for it is not a *system*) of instruction, Mr. Payne justly observes as follows:—

'It may not be amiss to consider, in the first instance, what is generally meant by the expression,—*learning a thing.* To learn any thing is evidently not the same as to forget it; yet we might almost imagine it were, by referring a moment to the common plan pursued in the old method. Will any one maintain that, speaking generally, at the end of his seven years or more of school instruction, he actually recollects one thousandth part of the facts that have been brought before him, or the observations that have been addressed to him, connected with the course of tuition? A considerable portion of all this combined mass of information has remained perfectly unintelligible to him, from the first moment that it was introduced to his notice, to the time at which he throws down his books and enters on the world. He perceived neither the end nor the design of it; and perhaps even the terms in which it was expressed were never thoroughly comprehended, although repeated incessantly in his hearing. In illustration of this it may be asked, Does one child in a hundred understand a single page of that book which is put into his hands as soon as he can read, and over which he pores, year after year, and, at length, by dint of constant repetition, has thoroughly impressed on his memory—the English Grammar? This may well be doubted. He learns, indeed, what is to him a jargon of unintelligible technicalities, like nothing that he meets with in the conversation of his comrades and friends, or in the language of those juvenile volumes which a nascent taste for reading may induce him to peruse; and after all, he is at a loss to conceive of what use it is for him then to know, that a verb is a word which signifies to be, to do, or to suffer; or that there are two kinds of conjunctions, the copulative and the disjunctive. It

would be absurd to ask him if he thoroughly understands these words, for it is quite impossible, even if the individual terms be explained to him; if, for instance, he perceives tolerably well what is meant by the words conjunction, copulative, and disjunctive, how can any idea be received into his mind of a something which separates while it joins; and, even supposing the present difficulty surmounted, does not the question incessantly recur to him, What is the use of all this? You tell him he cannot speak properly unless he understands grammar; but he does not, he cannot, perceive why it should be so; and perhaps he wonders how it is that he contrives to utter a correct sentence without recollecting, at the moment of utterance, all the grammatical rules which have been so constantly urged upon his attention. He however infers, that he does very often speak correctly, because he uses the same expressions as everybody else; and the point of mystery is, that he chances to do so without remembering the rules of grammar. The same remarks will apply, more or less, to many others of the generalities which, in the common course of instruction, a pupil is called upon to learn, but which he cannot, from a want of the information previously requisite, understand. Even, however, supposing that he does actually acquire a number of really useful facts, they form in his mind an *indigesta moles*, a shapeless mass, in which he perceives neither order nor connexion.'—pp. 2, 3.

'After sedulously going through all the manœuvres of instruction for several years, we come from school to begin our education afresh, according to the particular objects which it may be desirable for us to attain in life We are in possession, indeed, of a vast number of facts, but they lie for the most part unconnectedly and incoherently in the mind. Of a number of others we have a loose and vague notion, just sufficient to admit of consciousness that they exist, and have names attached to them, which names we know well, without knowing the things themselves. Still less, however, in these latter fragments of knowledge than in the former, do we perceive any sort of coherency or natural connexion: and upon a review of the whole of our acquirements, during the long time that we have been employed in making them, the feeling which takes full possession of our mind is,—that nine-tenths of all that we learned has been forgotten,—that we are well acquainted with no one subject whatever,—and that in nearly every point which most concerns us, we are—

Unpractis'd, unprepar'd, and still to seek.'—p. 5.

The learner taught by a Jacotot master is led to acquaint *himself* (for Jacotot, *no less than Pestalozzi did years before him*, forbids the teacher to *explain* and communicate to the passive mind of the child) with a particular set of facts which he learns thoroughly, so that they may be perfectly and permanently remembered, and from these he is expected to derive every other fact and particle of knowledge which he is desirous

of acquiring; for it is one of Jacotot's principles that ALL IS IN ALL, or more intelligibly, that each fact, with which he becomes acquainted, and especially each group of facts, is so intimately connected with every other fact and group of facts, that the latter may be evolved from the former. By the *continually active* operation of the mental faculties, which *must* result from the adoption of his plans, we are told—and to a certain degree we believe it—that a great deal is effected which is not done by other means. 'It may be said,' observes Mr. Payne, 'that

Children cannot criticise individual words and expressions, and perceive the design, or detect the faults and beauties of an admired literary composition. To this it is answered, that M. Jacotot has imagined, or, to speak correctly, has *proved* beyond a doubt, that little girls and boys, of between the ages of ten and fourteen, can do every thing here enumerated, not only with the classical authors of their own language, but with those of any foreign language (living or dead) which they may be studying;—and the observations referred to embrace in part the method of the system. The pupil of the Universal Instruction is taught to believe, that every word used by a good writer modifies in some respect the idea intended to be conveyed, and that, therefore, to understand the whole, he must understand each individual part: and he is never said to have learned a thing which he does not thoroughly comprehend (that is, receive altogether) in his mind, by an accurate perception of every subordinate notion and of all its relations with what he has previously learned. The knowledge thus gained is not likely to escape quickly from the mind; and the practice of incessant repetition, which is the soul of the system, renders permanent the first and all intervening ideas received by the understanding; so that of the mass of information, ever rolling on, and becoming augmented by contributions from all sides, it may be justly said—

Vires acquirit eundo.'

Let us now see how M. Jacotot's principles are applied to the various branches of education,—and first of all to the most elementary, namely, to reading and writing. Here we are informed of the startling fact, that 'the pupils of Jacotot learn to read and write in about a fortnight.' To prevent any misunderstanding of what is meant by this, Mr. Payne adds, 'at the termination of which period they are deemed capable of beginning the study of the vernacular language, according to the method which will shortly be explained.' In beginning to learn to read, the child, instead of going through the dull routine of learning the alphabet, and then spelling bee-a,- -ba, cee-a,—ca, &c., and wading through primers, and first-reading-books, &c., to his infinite disgust, is introduced at once to some standard classical work, such as Telemachus. Those who cannot agree in the paradoxical dictum

of Jacotot—that ALL INTELLIGENCES ARE EQUAL, will probably be of opinion that a book more adapted to a *child's* years and understanding, for instance, some story or collection of stories from ancient or modern history, or some elementary book on natural history would serve the teacher's purpose better, and be a much more rational basis for all his future acquirements.

Mr. Payne selects for the illustration of Jacotot's method the English translation of Telemachus. The child is taught to read, as follows :—

'The opening sentence of the first book runs as follows :

'"The grief of Calypso for the departure of Ulysses would admit of no comfort."

'Pointing to the word "The," the master pronounces it in a very distinct tone, and directs the pupil to repeat it after him. He then recommences with the first word and adds the second, and the two words are repeated in succession by the pupil. Beginning again, the third word is added, and the three are repeated by the child accordingly. The same process is used with the fourth word, still recommencing with the first. A pause is now made, and the pupil is at once called upon to exercise his faculty of noticing resemblances and differences. He is asked to point out the respective situations of the words "Calypso," "grief," "of," "the ;" the interrogation, after this manner, being continued till he can show, without the slightest hesitation, the place of each. He thus learns to distinguish them from one another. Any page of the book is then opened, and some particular sentence or line being pointed out to him, he is asked if the words that he knows are to be found there. As soon as the master is assured that the child is in thorough possession of these four words, he goes on adding successively the remaining words of the sentence, always recommencing with the first. The process of interrogation pursued at the end of the first four words is now repeated with each word of the sentence, until the child learns accurately to distinguish those words which are different, to recognise the likeness between those which are similar, and to point out any word of this sentence in any page of the book that may be opened before him. Proceeding according to strict analysis, the master now recommences the examination of each word of the sentence, dividing every word of more than one syllable into its component syllables, thus—"The grief of Ca-lyp-so for the de-par-ture," &c. The pupil is then called upon to notice and distinguish each syllable, after the same plan as that pursued with respect to entire words, and, at length, he is made acquainted with the name of every letter. After he has been well exercised, in this manner, upon a few sentences, the teacher directs him to go on by himself, without previously pronouncing the words to him, and only assists him when he meets with a word, syllable, or letter, which has never before come under his notice. Still, however, he *must recommence with the*

first word learned, as it is by this means only that all his previous acquisitions are permanently retained. He soon begins to have the first three or four sentences, thus so frequently repeated, impressed on his memory, and is told to spell them, dividing them into their component syllables and letters from recollection. After about sixty lines have been thus gone through, he cannot fail to be acquainted with nearly all, if not all, the letters of the alphabet, and with a vast variety of their combinations. It is, indeed, considered, that he is now taught to read. If any hesitation, indicative of imperfect perception, is evident in the pupil, the master must return to the same words, syllables, or letters, until they are thoroughly distinguished and comprehended.'—pp. 10, 11.

By adopting this plan, it is thought that the fatigue and disgust usually felt by children in learning this difficult branch of knowledge are nearly, if not entirely, avoided—1*st*, because the mind is not, as in the usual system, a mere inert subject, receiving impressions, but actively employed in noticing resemblances and differences, in judging, analysing, and generalizing;—2*dly*, because the child, from the conscious activity of his mind, is aware of the successful result of his labours, and therefore cheerfully strives to overcome difficulties, from the certainty of meeting his reward in the accomplishment of his object

After receiving *two* lessons in reading, the learner, rather too soon perhaps, is taught to write, as follows:—

'Instead of commencing with elementary lines, curves, and letters, in what is called text-hand, a complete sentence, written by the master or engraved, in *small-hand* *, is put before his eyes, which he is directed to copy. For obvious reasons, this sentence is generally the same as that from which he received his first notions of reading. The two pursuits are thus made mutually to assist each other, and the pupil very soon learns, by himself, to distinguish between the printed characters and those employed in writing. He writes, as well as he can, the first word "The," and no further progress must be made, till, by an attentive comparison of his own performance with the original copy, he becomes conscious of the faults and defects of the former.

'The questions referred to as necessary to be put to the pupil are of a similar character and tendency to the following:—Pointing to the first letter of the pupil's attempt, and directing him to look carefully both at it and at the copy, the teacher says,—

'*Q.* Is this *T* well made?

* There seems to be no sufficient reason for preferring a cramped small-hand to a good round-hand. Why should difficulties be increased? and, besides, it seems unlikely that children would learn the forms of the letters as easily from a small-hand as from one of a larger size, which allows greater freedom for the use of the fingers.

'*A*. No; it is too high, or too short, or too long, &c.
'*Q*. Could it be made better?
'*A*. I think so.
'*Q*. What must you do then to improve it?
'*A*. Make it longer, or shorter, or broader, &c.
'*Q*. How could you have made it better at first?
'*A*. By paying more attention.

'These questions, it is easily seen, may be indefinitely varied and extended, according to circumstances; but the principle must never be lost sight of, that *the pupil always corrects himself*. Each letter passes under a similar review, and the whole word is then written over again, the second and each successive attempt being subjected to the same rigid investigation, until the pupil learns to correct, in a greater or less degree, every fault, as previously particularized by himself. He then goes on to the second word, in examining which, the process just described is invariably employed, and so on with regard to the rest of the sentence, recollecting, that every time a fresh word is taken, the writing must commence with the first word written, that all the results of the attention previously bestowed may be embraced and preserved each time of transcription, and that the pupil may not fall again into any of the errors of which he has already been made conscious. When the child begins to transcribe a sentence or two tolerably well, he is required to write from memory, and afterwards note his faults by comparison with the original copy.'—pp. 14, 15.

Thus far there seems to be little to disapprove in M. Jacotot's method, but, on the contrary, much that deserves commendation, as being natural and likely to please and interest those for whose use it is intended. The old way of teaching to read and write is execrable, and it would be well if the plan here described could be introduced in its place.

The child having been thus easily taught to read and write is next required to apply this knowledge to some useful purpose, as for instance, learning his mother-tongue. As the plan here adopted is similar to that employed in teaching languages in general, a description of it will serve for all. Still the principle announced at the commencement, 'Learn something thoroughly,' &c., is fully carried into practice.

'To adapt it to the study of all languages, whether the vernacular or others, it is made to assume the following form:—*Learn one book in the language (whatever this may be) thoroughly, refer all the rest to it by your own reflection, and verify the observations of others by what you know yourself*. He who obeys this direction, acquires languages in about one-tenth of the time usually employed to arrive at the same result.'—p. 17.

It is by the *matter* of a language first, and subsequently by

a careful *generalization founded on this matter,* that the Jacotot student acquires his knowledge of it.

'Grammar, instead of being introduced to the pupil's attention as soon as he can read, is postponed to a very late stage in his literary education. He writes themes, moral and physical essays, criticisms, &c. &c., and, in short, goes through an entire course of elementary composition, before he is required to investigate the principles of grammar.'—p. 17.

And again—

'Instead of learning rules, in order to apply facts to them, the pupils of Jacotot are directed to learn the facts themselves, and afterwards to verify the rules or observations of the grammarians by their own knowledge. They are, indeed, sent (to use the author's expression) *to the masters of the grammarians,* that is, to the standard classical writers of the language.'—p. 19.

So far as respects the principle it will be thought to be just and philosophical. We are not convinced, however, of the judiciousness of the following remark (Mr. Payne's):—'that the real importance of grammatical knowledge in the business of education is by no means commensurate with that factitious estimation in which it has long been held.' A complete knowledge of the grammar is one of the last stages in learning a language, and it should be so; but yet it is a kind of knowledge not a whit less important than any that precedes it. It is that which cements and strengthens the parts of the whole, and proves its stability, beauty, and symmetry; and no one can be reckoned to have gained a sufficient, correct, and critical knowledge of any language whatever, until he has generalized its particulars, and formed in his own mind both the principles and details of the grammar.

M. Jacotot is said to proceed as follows:

'The pupil is required to commit to memory the first six books of Telemachus, as an introductory exercise. These he must know perfectly, so as to be able to repeat them from one end to the other without the slightest hesitation; and whenever the teacher mentions the first word of a paragraph or sentence, to continue the paragraph or sentence without the omission of a single word. Many persons to whom this has been mentioned have been at once startled at what they considered so vast a requirement, not recollecting, at the same time, that much more, and (as will be shown) to infinitely less purpose, is exacted from the pupil by the common method.'—p. 20.

It is indeed rather startling to hear of the great advocate for *Intellectual* Emancipation proposing to load the memory with six books of Fenelon's Telemachus, or an equal quan-

tity of any work whatever, not one word of which is necessarily supposed to be understood by the unfortunate learner. Well, indeed, may such an exercise be found 'tedious and wearisome,' and such as 'to require great care on the part of the teacher to prevent it from becoming repulsive and disgusting to the pupil.' Is it possible that such a proposition could have been made by any one who has studied the constitution of the human mind as M. Jacotot professes to have done? Mr. Payne, it is justice to state, has the good sense to see in part the absurdity of the plan here laid down, and he suggests a remedy; but none, we apprehend, can be applied in the case of a dead language, without sacrificing one of Jacotot's leading principles, which forbids all explication whatever on the teacher's part. The task, however, with all its difficulties, somehow or other is learnt (at least so we are told), little being exacted at first, gradually more and more, until the pupil's memory, by dint of severe exercise, is enabled to retain more readily and permanently. This spiritless task over, the child's labour, we are told, is almost all past (it were well indeed if it were, considering what he has passed)—although, forsooth, he knows not one single word of the meaning of the language which he is engaged in learning To proceed—

'Every exercise afterwards required of him is little better than amusement; he is in possession of all the necessary materials, and his mind will almost spontaneously employ them. In his book, he finds the elements of Grammar, Composition, Criticism, Mental and Moral Philosophy, Logic, the Science of Human Nature in general, History, Geography, Science, &c. &c., of everything, indeed, that the author deemed it necessary for himself to know, in order to produce his work as it actually exists. He is in thorough possession of the unembodied essence of all the subjects of knowledge just mentioned, though he is not made to stumble and start at their technical nomenclature. Nothing remains but to evolve the various elements, and they are then seen to assume the form and character of distinct sciences. But this is not all: from particular facts, and the particular reflections connected with them, the pupil's mind is led on to analyse circumstances in the aggregate,—to generalise,—to trace the method pervading the whole,—to see the reason of that method,—and thus to enter into the very spirit of his author, and to understand everything, to think upon everything, as the author did while composing his work.'—pp. 20, 21.

This may be regarded as the explication of Jacotot's dictum, '*Tout est en tout.*' Little more is meant, we apprehend, than that everything is *to be learnt thoroughly*, and all possible use made of facts already *known*, in order that

they may be used as paths to lead the learner to regions *unknown*, and still to be explored. The spirit of the maxim, as it is explained at present, was acted upon by Pestalozzi, who was the first to introduce into school education the very philosophical plan of *development.** This plan of learning facts in a factitious connexion with certain other facts committed to memory, may be good to a certain extent; but the pursuit of the principle to its farthest possible extreme will not, it is feared, in reality be attended by all the benefit anticipated by the Jacototians. We do not allow that the *seeds* of the different sciences may be found in the contents of any classical work, such as Fenelon's 'Telemachus,' or Johnson's 'Rasselas;' and if the seeds were there, we believe no crop of sound and useful knowledge will be gained by the pupil who is to till in these fields alone.

It will be well to let some few of Mr. Payne's practical illustrations have a place here, in order that the reader may have some idea of the manner in which his principles are applied. Repeated interrogation is used to *unfold* the pupil's knowledge. Employing again the translation of 'Telemachus,' and—

'Taking the first sentence—

"The grief of Calypso for the departure of Ulysses would admit of no comfort"—

The teacher asks—Who was gone?

The pupil answers—Ulysses.

Q. Who was grieved?

A. Calypso.

Q. What was the cause of Calypso's grief?

A. The departure of Ulysses.

Q. Did Calypso love Ulysses?

A. Yes.

Q. How do you know that?

A. Because her grief for his departure would admit of no comfort.

Q. Was she slightly grieved, or very much?

A. Very much.

Q. What do we call that grief which admits of no comfort?

A. Inconsolable.'—pp. 29, 30.

'The mind is to be *directed*, not *taught*. It is to be placed so that it may see the subject in every possible point of view, and the interrogation must be continued, until the entire scene, the actors, the action performed, the cause and object of the action, the

* To those who are unacquainted with Pestalozzi's views on education, it may be necessary to explain, that he looks upon the child as possessing a mind endued with faculties capable of exertion, and containing, as it were, within itself, by reason of its active principle, the rudiments of knowledge. These rudiments it is the teacher's work to develop, not by explaining to the [illegible] mind, but by leading it to *unfold itself*, and *display* its hidden powers.

modifying circumstances, &c. &c. are all distinctly in view. Not a word must be neglected. This comprehends the *learning thoroughly*; and the practice of *referring everything to the first thing learned*, can, as will be seen directly, even in this initiatory stage, be brought into operation. The next sentence is read.

"In the height of her sorrow, she even regretted her immortality."

Q To whose sorrow is reference here made?
A To that of Calypso.
Q. Who was immortal?
A. Calypso.
Q. Why did she regret her immortality?
A. Because Ulysses was gone, and in her sorrow she would have wished to die.
Q. Why wish to die?
A. That she might lose her sorrow.
Q. Why could she not die?
A. Because she was immortal.
Q. What is it then to be immortal?
A. Not to be able to die.
Q. What do we know of Calypso from this sentence?
A. That she was sorrowful and immortal.
Q. Did we know these circumstances from the first sentence?
A. No; only one of them, that she was sorrowful.
Q. What more then do we now see?
A. That she was immortal.' pp. 30, 31.

This process is continued through the whole series of instruction; and thus, as Mr Payne observes,

'The pupil in this way becomes well acquainted with each word, phrase, paragraph, several paragraphs united, and, in short, with an entire book. As the exercise is continued, and the pupil accustomed to answer, his progress becomes more and more interesting. Every new character, every new fact or group of facts, must be compared with those that have preceded.' - p. 35.

When the pupil possesses a perfect knowledge of the ideas contained in his text book, he is led to generalize and to express the results in writing. Thus he is taught to write descriptive pieces, moral essays, &c. &c., all grounded on the knowledge gained from the study of his model; and then required to justify, or prove the correctness of his statements, by comparing them with those in the original. It may be reasonably doubted, whether much *real* benefit can result to the pupil from stringing together in a connected *moral* essay, sentences, phrases, and words, which often, with little relation to the subject, occur in his reading; at best this is nothing more than a bad way of teaching what is called *composition*.

Jacotot's course, based entirely on an acquaintance with a

certain quantity of some good work, comprehends twenty kinds of exercises: 1. 'To imitate,' *i. e.*, to apply similar sentiments to different circumstances; 2. 'To make general reflections upon known facts,' which is a more advanced process of generalization; 3. and 4. 'To distinguish the nice shades of distinction observable between words and phrases generally accounted synonymous:'—

'5. To examine parallel subjects.
6. To examine analogous thoughts.
7. To transfer or translate the reflections arising from one subject to another somewhat similar.
8. To analyze a chapter, book, poem, &c.
9. To develop or paraphrase the thoughts of an author.
10. To find subjects for transference.
11. To write upon a literary or critical subject; to furnish descriptions of things observed
12. To imitate a thought
13. To write letters.
14. To pourtray a character.
15. To compare characters.
16. To write tales, sketches, &c.
17. To verify the grammar
18. To write upon any given subject in a given time.
19. To speak extemporaneously upon a given subject.
20. All is in all.'—p. 39.

To understand all these exercises, the reader must study Mr. Payne's book; and it will be well if a thorough understanding of their meaning is gained thereby.

We have thus, as briefly as possible, and it is to be feared but imperfectly, given an account of Jacotot's system as explained by Mr. Payne. There are many good points in it, and his leading principle, 'Learn something,' &c., as a *general* maxim, is correct and useful. To strain a principle, however, and to apply it universally, even where it is not applicable, is injudicious; and this has been done by Jacotot. His views respecting the teaching of languages, seem to be exceedingly unsound. The adoption of them is likely, as we think, not only to damp the power of imagination, but to destroy all originality of thought, by making the students' compositions not the expressions of their own minds so much as a copy or transcript of the sentiments of the writer whom he has been studying. It is also one of M. Jacotot's principles to teach all languages by the same medium, *i. e.*, by using the same work with translations of it, for the purpose, it is said of facilitating the comparison of idioms, &c. Expediency cannot justify a decided error

in principle, as we believe this to be, though we readily allow that many good teachers are of a different opinion. It will, however, be acknowledged, in general, by those who are competent to judge of the matter, that no translation can be made of any piece of composition from one language into another, at the same time *perfectly* conveying the ideas of the original, and bearing the characteristics of ease and nature which are essential to good writing in any language, and yet, at the same time, not greatly departing from the form and idiom in which the ideas to be translated were originally expressed. Hence we look upon the plan proposed as exceedingly injurious,—likely to give persons very wrong impressions on the subject of languages, and to impart to them much which they must necessarily unlearn before they can acquire any just notions, any real knowledge. In respect of the dead languages,—and M. Jacotot applies his principle equally to these as to the living,—the notion is too absurd to require refuting. What is the result of the application of his method to these languages? Out of a great number of compositions which we have *seen* (some of which the reader may examine for himself in an account of Jacotot's method by Mr. Cornelius,—particularly two,—one Latin on the influence of classical studies on morality,—another Greek—a most *tasteless* eulogium on Jacotot) there is not one that rises above mediocrity;—in general they are far below it.—some are ridiculous. The Greek specimen given by Mr. Cornelius, p. 65, has the following certificate attached to it: 'Agé de 13½ ans. Trois mois d'étude.' It is certainly something very much more than would be produced after three months' study in the usual way, but we do not on this account set a high value on it. It is evidently composed of scraps learned by heart and put together with very little knowledge of the language. The most ludicrous blunders are found in nearly every line, such as οἱ γιγνοσκοντες ἑαυτου for οἱ γιγνωσκοντες αὐτον, ἐπαιδευθησαν for ἐπαιδευσαν, and γαρ δει for δει γαρ, &c. Half of it is nearly unintelligible. We think it necessary to protest specially against this piece of Greek, because it is that kind of thing which is likely to deceive parents who are not competent to judge. The permanency of the impression made, is said to be one striking advantage of the Jacotot system: if Greek like this is permanently fixed in a lad's mind, it is a complete bar to the acquisition of the language.

In conclusion, we are of opinion that there are some points of great merit in the method of universal instruction,—particularly as respects reading and writing, and also *some* parts of the plan pursued by Jacotot in teaching languages.

As a whole, however, we do not approve of the system. M. Jacotot may, as he does, put forth his opinions with positiveness; but it is for those who read them, and with an *impartial* eye see them reduced to practice, to judge of their correctness and practical utility. It is to be hoped that teachers will maturely weigh the merits and demerits of *every part* of the system, before they introduce it in its entire form to the pupils, and not too soon be charmed by its novelty and plausibility to rest upon it all the future instructions which they impart.

MEMOIRS OF OBERLIN.

Memoirs of John Frederic Oberlin, Pastor of Waldbach, in the Ban de la Roche. Compiled from authentic sources, chiefly in French and German. Second Edition. 1830.

The Ban de la Roche (in German the Steinthal), forms a part of a range of mountains known as the Haut Champ, or Champ de Feu, which are detached by a deep valley from the eastern boundary of the chain of the Vosges. Nature has not been lavish of her gifts to this isolated canton. Its German name, which signifies the Valley of Stone, is expressive of its native barrenness. Its winter commences in September, and the snow remains undissolved till the following May. In the more elevated parts of the district, the people say that the wife can carry home in her apron all the hay which her husband has mown in a long morning. To fill up the measure of wretchedness for the few inhabitants of the canton, it was laid waste during the Thirty years' war, and again, after a short breathing-time, in the reign of Louis XIV. Thus, in the middle of the last century, the nine thousand acres of which the Ban de la Roche consisted did not afford subsistence to a hundred families, and these were destitute of all the comforts of civilized life. But, miserable as these people were, they retained a blessing which, if not in itself a compensation for the sterility of their soil, the curse which war had brought upon them, and the neglect of their government, was the germ at least of eventual prosperity and happiness. They had, in common with the rest of Alsace, liberty of conscience. The decree which incorporated this province with France, secured to them this inestimable good. Religious persecution, therefore, never entered these secluded valleys, to destroy the last hope which was left amidst abject poverty and ignorance. The people of the Ban de la Roche, who were Lutherans, followed their own worship unmolested, whilst the Protestants of Languedoc and other parts of France, endured the most [illegible]

this freedom which at last gave them knowledge, and all the blessings which follow in its train, by bestowing upon them a pastor who, whilst he never lost sight of his peculiar duties as a minister of religion, knew that God would not be worshipped with less zeal and sincerity by an instructed than by an ignorant population, and that the spiritual condition of his flock would in no degree be deteriorated if their outward circumstances could at the same time be improved. That pastor was Oberlin, whose interesting memoirs we here notice, principally to show how much the systematic energy of one man may accomplish in advancing the work of education, and how speedily and surely the most benighted ignorance of an agricultural population may be superseded by an active and comprehensive intelligence, if the people are taught the value of knowledge by practical appeals to its certain influence upon their own condition.

The Ban de la Roche has been singularly fortunate in having had the work of general education carried forward with zeal and discretion by the religious instructors of its population, from the year 1750 to the death of Oberlin in 1827. The predecessor of Oberlin was M. Stouber, a man of a less ardent temperament, but who, like himself, had the remarkable merit of perceiving the necessity of instructing the great body of the people, undeterred by those vain fears, and uninfluenced by those obstinate prejudices, which, in nations calling themselves enlightened, have so long opposed the progress of knowledge, upon the principle that popular ignorance and state security are inseparable. M. Stouber began his pastoral office by reforming the village schools. The principal establishment for the elementary instruction of the district was a miserable cottage, where a number of children were crowded together, wild and noisy, and without occupation. The schoolmaster, a withered old man, lay on a little bed, in one corner of the room. The dialogue between Stouber and this functionary is amusing :—

'What do you teach the children?
Nothing, Sir.
Nothing! how is that?
Because I know nothing myself.
Why, then, were you instituted schoolmaster?
Why, Sir, I had been taking care of the Waldbach pigs for a great number of years, and when I got too old and infirm for that employment, they sent me here to take care of the children.'

We are by no means sure that the ancient race of parish schoolmasters, of which he of Waldbach was not an unfavourable specimen, (for his candour, if not his learning, deserve our commendation), is quite extinct even in our own

country. Unlike some of the authorities amongst ourselves, who preside over the mysteries of village instruction, dispensing the smallest possible quantity of knowledge, and that of the worst quality, with as rigid an economy as that which regulates the distribution of a mountebank's prizes, Stouber thought that the poverty of the schoolmaster was not the only qualification for the business of teaching. He set about procuring new schoolmasters; but the trade was considered so disreputable, that none of the more respectable inhabitants of the canton would undertake the office. Stouber, like a wise man, changed the title of the vocation; and though he could not obtain schoolmasters, he had no difficulty in finding superintendents for his schools under the dignified name of 'Messieurs les Régents.' These worthy men were soon in full activity. Stouber printed spelling-books and reading lessons for the use of his pupils, and built a log-hut for a school-house. The progress made by the children induced their parents to wish to read, and a system of adult instruction, during part of the Sunday, and in the long winter evenings, was established throughout the canton. In addition, he gave the people bibles, which they had never before seen, or even heard read, for their former minister had not possessed a copy himself. Stouber persevered in his admirable labours for fourteen years, when, his wife dying, his situation lost a principal charm, and he accepted the station of pastor to St. Thomas's Church, at Strasbourg. He found a successor in Oberlin (a native of Strasbourg, and brother of the celebrated Professor), who had been educated for the ministry, and who was ardently looking for some cure in which his pious zeal might be fitly exercised. He entered upon his charge in 1767, in the twenty-seventh year of his age.

Oberlin's situation was a singular one, and to some minds it would have been sufficiently discouraging. He was of an enthusiastic nature, devoted to his profession, ardent in the attainment of knowledge, and anxiously desirous to communicate it to others. The people amongst whom he was thrown were still lamentably ignorant, and obstinately prejudiced against any attempts to improve them which should require a deviation from their old habits. They suffered Stouber to teach their children to read, because the schoolmaster was an ancient officer amongst them; but Oberlin's notions of education were much too comprehensive for their understandings. He found them speaking a rude patois, which as effectually separated them from communication with the rest of mankind as their utter want of roads; the husbandmen were destitute of the commonest implements, and had no means of procuring them; they had no knowledge of agri-

culture beyond the routine practices of their forefathers; they were ground down and irritated by a hateful feudal service. He devoted himself to the correction of these evils, at the same time that he laboured in his spiritual vocation. The people at first did not comprehend his plans or appreciate his motives. Ignorance is always suspicious. They resolved, with the dogged pertinacity with which the uneducated of all ranks cling to the rubbish of old customs, not to submit to innovation. The peasants agreed on one occasion to waylay and beat him, and on another to duck him in a cistern. He boldly confronted them, and subdued their hearts by his courageous mildness. But he did more: he gave up *exhorting* the people to pursue their real interests; he practically showed them the vast benefits which competent knowledge and well-directed industry would procure for them. These mountaineers in many respects were barbarians; and he resolved to civilize them, as all savages are civilized, by bringing them into contact with more enlightened communities. The Ban de la Roche had no roads. The few passes in the mountains were constantly broken up by the torrents, or obstructed by the loosened earth which fell from the overhanging rocks. The river Bruche, which flows through the canton, had no bridge but one of stepping-stones. Within a few miles of this isolated district was Strasbourg, abounding in wealth and knowledge and all the refinements of civilization. He determined to open a regular communication between the Ban de la Roche and that city; to find there a market for the produce of his own district, and to bring thence in exchange new comforts and new means of improvement. He assembled the people, explained his objects, and proposed that they should blast the rocks to make a wall, a mile and a half in length, to support a road by the side of the river, over which a bridge must also be made. The peasants one and all declared the thing was impossible; and every one excused himself from engaging in such an unreasonable scheme. Oberlin exhorted them, reasoned with them, appealed to them as husbands and fathers —but in vain. He at last threw a pickaxe upon his shoulder, and went to work himself, assisted by a trusty servant. He had soon the support of fellow-labourers. He regarded not the thorns by which his hands were torn, nor the loose stones which fell from the rocks and bruised them. His heart was in the work, and no difficulty could stop him. He devoted his own little property to the undertaking; he raised subscriptions amongst his old friends; tools were bought for all who were willing to use them. On the

Sunday the good pastor laboured in his calling as a teacher of sacred truths; but on the Monday he rose with the sun to his work of practical benevolence, and, marching at the head of two hundred of his flock, went with renewed vigour to his conquest over the natural obstacles to the civilization of the district. In three years the road was finished, the bridge was built, and the communication with Strasbourg was established. The ordinary results of intercourse between a poor and a wealthy, a rude and an intelligent community, were soon felt. The people of the Ban de la Roche obtained tools, and Oberlin taught their young men the necessity of learning other trades besides that of cultivating the earth. He apprenticed the boys to carpenters, masons, glaziers, blacksmiths, and cartwrights, at Strasbourg. In a few years these arts, which were wholly unknown to the district, began to flourish. The tools were kept in good order, wheel-carriages became common, the wretched cabins were converted into snug cottages; the people felt the value of these great changes, and they began to regard their pastor with unbounded reverence.

Oberlin, however, had still some prejudices to encounter in carrying forward the education of this rude population. He desired to teach them better modes of cultivating their sterile soil; but they would not listen to him. 'What,' said they, with the common prejudice of all agricultural people in secluded districts, 'what could he know of crops, who had been bred in a town.' It was useless to reason with them; he instructed them by example. He had two large gardens near his parsonage, crossed by footpaths. The soil was exceedingly poor; but he trenched and manured the ground, with a thorough knowledge of what he was about, and planted it with fruit trees. The trees flourished, to the great astonishment of the peasants; and they at length entreated their pastor to tell them his secret. He explained his system, and gave them slips out of his nursery. Planting and grafting soon became the taste of the district, and in a few years the bare and desolate cottages were surrounded by smiling orchards. The potatoes of the canton, the chief food of the people, had so degenerated, that the fields yielded the most scanty produce. The peasants maintained that the ground was in fault; Oberlin, on the contrary, procured new seed. The soil of the mountains was really peculiarly favourable to the cultivation of this root, and the good minister's crop, of course, succeeded. The force of example was again felt, and abundance of potatoes soon returned to the canton. In like manner, Oberlin intro-

duced the culture of Dutch clover and flax; and at length overcame the most obstinate prejudice, in converting unprofitable pastures into arable land. Like all agricultural improvers, he taught the people the value of manure and the best modes of reducing every substance into useful compost. The maxim which he incessantly repeated was, 'let nothing be lost.' He established an agricultural society, and founded prizes for the most skilful farmers. In ten years from his acceptance of the pastoral office in the Ban de la Roche, he had opened communications between each of the five parishes of the canton and with Strasbourg, introduced some of the most useful arts into a district where they had been utterly neglected, and raised the agriculture of these poor mountaineers from a barbarous tradition into a practical science. Such were some of the effects of education in the most comprehensive sense of the word.

The instruction which Oberlin afforded to the adults of his canton was only just as much as was necessary to remove the most pressing evils of their outward condition, and to impress them with a deep sense of religious obligation. But his education of the young had a wider range. When he entered on his ministry, the hut which his predecessor had built was the only school-house of the five villages composing the canton. It had been constructed of unseasoned logs, and was soon in a ruinous condition. The people, however, would not hear of a new building;—the log-house had answered very well, and was good enough for their time. Oberlin was not to be so deterred from the pursuit of his benevolent wishes. He applied to his friends at Strasbourg, and took upon himself a heavy pecuniary responsibility. A new building was soon completed at Waldbach, and in a few years the inhabitants in the other four parishes came voluntarily forward, to build a school-house in each of the villages. Oberlin engaged zealously in the preparation of masters for these establishments, which were to receive all the children of the district when of a proper age. But he also carried the principle of education farther than it had ever before gone in any country. He was the founder of *Infant* Schools. He saw that almost from the cradle children were capable of instruction; that evil habits began much earlier than the world had been accustomed to believe; and that the facility with which mature education might be conducted, greatly depended upon the impressions which the reason and the imagination of infants might receive. He appointed *conductrices* in each commune, paid at his own expense; and established rooms, where children from two to six years old

might be instructed and amused;—and he thus gave the model of those beautiful institutions which have first shewn us how the happiness of a child may be associated with its improvement, and how knowledge, and the discipline which leads to knowledge, are not, necessarily

'Harsh and crabbed as dull fools suppose.'

The children, in these little establishments, were not kept 'from morn till noon, from noon to dewy eve' over the horn-book and primer. They learnt to knit, and sew, and spin; and when they were weary, they had pictures to look at, and maps, engraved on wood, for their special use, of their own canton, of Alsace, of France, and of Europe. They sang songs and hymns;—and they were never suffered to speak a word of *patois*. This last regulation shews the practical wisdom of their instructor. There are parts of the United Kingdom which will always fall short of the general civilization; as long as languages which have no literature continue to be spoken there. The Welch, and Irish, and Gaelic, however venerable in the eyes of antiquaries, are effectual obstacles to the civilization of the districts from which they are not yet rooted out.

When the children of the Ban de la Roche—the children of peasants, be it remembered, who a few years before the blessing of such a pastor as Oberlin was bestowed upon them, were not only steeped

'Up to the very lips in poverty,'

but were groping in that darkness of the understanding which too often accompanies extreme indigence—when these children were removed to the higher schools, which possessed the most limited funds when compared with almost the meanest of our parochial endowments for education, they were taught reading, writing, arithmetic, geography, astronomy, sacred and profane history, agriculture, natural history especially botany, natural philosophy, music, and drawing. Oberlin reserved for himself, almost exclusively, the religious instruction of this large family;—and he established a weekly meeting of all the scholars at Waldbach. The inhabitants of Strasbourg and of the neighbouring towns from which the Ban de la Roche had been recently cut off, came to look upon the wonders which one man had effected. Subscriptions poured in upon the disinterested pastor;—endowments were added. Well did he use this assistance. He founded a valuable library for the use of the children; he printed a number of the best school-books for their particular instruction; he made a collection of philosophical and mathematical instru-

ments; he established prizes for masters and scholars; he published an almanack, which he gave to his people, in the preface to which is the following passage:—

'In your common almanacks you find, and pay for, a number of incomprehensible things; for others absolutely useless; and for others contrary to the commands of God,—such as prognostics of the weather, nativities, predictions from the planets according to birth days, lucky and unlucky days, or good or bad omens. This new almanack is divested of such nonsense.'

Thus did this extraordinary man strive to raise the intellectual standard of his parishioners, whilst he laboured to preserve the purity of their morals and the strength of their piety. Never did religion present more attractive features than in the secluded districts of the Ban de la Roche. The love of God was constantly inculcated as a rule of life; but the principle was enforced with no ascetic desire to separate it from the usefulness and the enjoyment of existence. The studies in which these poor children were trained contributed as much to their happiness as to their knowledge. They were not confined for years, as are the boys and girls of our parish schools, to copying large text and small hand, to learning by rote the one spelling-book, to hammering at the four rules of arithmetic without understanding their principles or their more practical applications, to repeating the catechism, and to reading the Pentateuch*. The principle which unhappily determines the course of too many of our parochial schools, is a fear that the children of the working classes should be over-educated—a grovelling and ignorant fear. The children of Oberlin's schools were taught whatever could be useful to them in their pastoral and agricultural life, and whatever could enable them to extract happiness out of their ordinary pursuits. They were incited to compose short essays on the management of the farm and the orchard; they were led into the woods to search for indigenous plants, to acquire their names, and to cultivate them in their own little gardens; they were instructed in the delightful art of copying these flowers from nature; it was impressed upon their minds that as they lived in a district separated by mountains from the rest of mankind, and moreover a district naturally sterile, it was their peculiar duty to contribute

* The reading of the Bible in the classes of many parish schools is conducted, not with reference to the connexion of the Old with the New Testament, but upon the established principle of beginning at the beginning, and continuing right onwards; so that after a child has waded through all the Levitical law, and one or two of the historical books, the remainder of the volume is left to the chance perusal of his maturer years.

something towards the general prosperity; and thus, previously to receiving religious confirmation, Oberlin required a certificate that the young person had planted two trees. Trees were to be planted, roads were to be put into good condition, and ornamented, to please Him 'who rejoices when we labour for the public good.' Surely a community thus trained to acquire substantial knowledge, equally conducive to individual happiness and general utility, were likely to become virtuous and orderly members of society, contented in their stations, respectful to their superiors, kind to each other, hospitable to the stranger, tolerant to those who differed from them in opinion. Oberlin lived long enough to see that such conduct was the real result of his wise and benevolent system. Let those who are afraid of overteaching the poor, see what sort of men and women were formed by their kind minister, out of the boys and girls of the Ban de la Roche.

In 1784, Oberlin lost his excellent wife. There was a servant in his family, an orphan named Louisa Schepler, who had been brought up in his schools, and was afterwards one of the *conductrices* of the infant establishments. After being the nurse of Oberlin's children for nine years following the death of their mother, this poor girl wrote to her master, her *cher papa*, to beg that she might be allowed to serve him without wages.

'Do not, I entreat you,' she says, 'give me any more wages; for as you treat me like your child in every other respect, I earnestly wish you to do so in this particular also. Little is needful for the support of my body. My shoes, and stockings, and *sabots* will cost something, but when I want them I can ask you for them, as a child applies to its father.'

The enemies of education used to maintain that the instruction of the poor would put an end to the race of faithful servants. Let Louisa Schepler answer them!

In the course of twenty years the population of the Ban de la Roche had increased to six times the number that Oberlin found them when he entered upon his charge. The knowledge which their pastor gave to the people gave them also the means of living, and the increase of their means increased their numbers. The good minister found employment for all. In addition to their agricultural pursuits, he taught the people straw-platting, knitting, and dyeing with the plants of the country. In the course of years Mr. Legrand, of Basle, a wealthy and philanthropic manufacturer, who had been a director of the Helvetic republic, introduced the weaving of silk ribbons into the district.

'Conducted by Providence,' says this gentleman, 'into this remote valley, I was the more struck with the sterility of its soil, its straw-thatched cottages, the apparent poverty of its inhabitants, and the simplicity of their fare (chiefly consisting of potatoes), from the contrast which these external appearances formed to the cultivated conversation which I enjoyed with almost every individual I met whilst traversing its five villages, and the frankness and *naïveté* of the children, who extended to me their little hands. . . . . . It is now four years since I removed here with my family; and the pleasure of residing in the midst of a people whose manners are softened, and whose minds are enlightened by the instructions which they receive from their earliest infancy, more than reconciles us to the privations which we must necessarily experience, in a valley separated from the rest of the world by a chain of surrounding mountains.'

Let Mr. Legrand reply to those who affirm that an educated peasantry would become discontented with their lot, and therefore troublesome and impertinent neighbours to the more wealthy inhabitants who reside amongst them!

The people of the Ban de la Roche for eighty years had been in dispute with the *seigneurs* about the rights of forest to which each party laid claim. This dispute was carried on, sometimes with furious violence, but habitually with expensive litigation. In 1813, Oberlin persuaded his flock to come to an accommodation, which should at the same time have respect to the claims of the owners, and secure a due portion of their own proper privileges. He convinced them that this ruinous contest was the scourge of the country, and that it was the duty of all men to live in peace. The parties agreed to an accommodation advantageous to both sides; and the pen with which the deed of pacification was signed was solemnly presented to him by the mayors of the canton. It was for that pen to record, as clearly as facts can speak, that an educated people are the truest respecters of the rights of property! Without an acquaintance with their political duties (that part of education which is the most fearfully neglected amongst ourselves), Oberlin could never have convinced those peasants that any portion of the claims of the *seigneur* were founded in justice and the common good.

There is a prevailing opinion that the virtues of hospitality and of self-denying charity belong, almost exclusively, to uncultivated minds; and we are taught to look for their perfection in the dirt of a Highland cabin or of an Irish hovel. An English visitor of the Ban de la Roche says,

'If you go into a cottage they quite expect you will eat and drink with them; a clean cloth is laid upon a table, and the new milk and

the wine, and the great loaf of bread, are brought out; yet they are in reality exceedingly poor.'

The authoress of the 'Memoirs' says,

'When a poor father or mother died, leaving a numerous family, it was a thing of course for some poor person to offer to take upon himself the charge and care of the orphans, so that many of the households contained one or two of these adopted children, and they seldom thought of mentioning that they were not their own.'

Let those who maintain that what we gain in knowledge we lose in feeling, take a lesson from the foster-fathers of the Ban de la Roche!

If the example of Oberlin be worth anything, it ought not to be without its influence upon the landed proprietors, and more especially upon the clergy, of our own country. Let us look to Ireland, the opprobrium of our civilization. Blessed with a fertile soil and a genial climate, surrounded by all the attributes of wealth and refinement, in communication with the most industrious and intelligent people of the earth, Ireland is cursed with poverty, ignorance, idleness, anarchy, intolerance, and every other evil that denotes a low standard of morals and knowledge. Is this condition past remedy? We think it is not; for the evil may be diminished, if it cannot be entirely removed. An example is on record.

The district of Glenbegh, on the banks of the bay of Castlemain, in the county of Kerry, was, twenty years ago, inhabited by as rude a population as could be exhibited even in Ireland. This estate, consisting of about 15,000 acres, is the property of Lord Headley. It yielded scarcely anything to its proprietor; it was an asylum for criminals, not pervious to a king's writ or a magistrate's warrant; the people on the coast were all wreckers; they lived in hovels without windows or chimneys; they were constantly quarrelling; they had no shoes or stockings; the district was almost wholly without roads, and not a wheel-carriage was employed in the agricultural operations of the interior. In 1830, the people were well-clothed; the houses were built of stone, with windows and chimneys, the old cabins being converted into cow-sheds; the agriculture was superior to the best cultivated of the neighbouring districts; roads were established, and wheel-carriages were commonly used. How was this great change effected? The agent of Lord Headley will tell us:

'The means adopted were, generally, an attention to the character of the people, and a constant desire on the part of the [illegible]

nagers of the estate, to avail themselves of the disposition of these people to the improvement of the lands, and to the improvement of their habits and character; it was done with very little sacrifice of rent or of money, but a constant and earnest attention to the object of improving the estate by the industry of the people.'*

Schools were established in Glenbegh; but the labour which they were free to pursue was so profitable, that the children deserted their instructors to go to work. Had Oberlin been there, this matter would have been better regulated. The people were, however, anxious for education; and they gave the agent a list of books which they desired to have, amongst which was the 'Spectator.'

But let us not deceive ourselves by imagining that Ireland alone, of the United Kingdom, requires such a sound and comprehensive system of education as the pastor of Waldbach bestowed upon his poor parishioners. The ignorance of the agricultural districts of England is too appalling to be any longer concealed. It has spoken with a voice of terror to those who lulled themselves into a shameless neglect of their duty, by the miserable belief that in the intellectual darkness of the labourers consisted their own security from *servile* violence. Is it not monstrous, in a country which possesses endowed schools in every town, which has National schools, and Lancasterian schools, and Sunday schools in every village, and, above all, which has five thousand beneficed clergymen distributed over the whole land, that any such state of ignorance should exist as would lead to rick-burning and machine-breaking?

It has been said, and we think justly, that it may be known, from the civil or brutal manners of the people, whether there is a resident clergyman in a parish. But the clergy of England ought not to fancy they have done enough when they have earned this compliment. We are quite ready to acknowledge the influence which the precepts and the example of an educated and conscientious minister of religion must have, in the removal of the grosser indications of extreme ignorance; and we know that those who are content to discharge the honourable office of a parish priest, in the spirit which Herbert described and exemplified, not only remove and mitigate much positive suffering amongst their humble neighbours, but to a certain extent greatly raise the standard of morality and knowledge within the sphere of their vocation. The rich endowments of the church of England seem particularly calculated to enable sincere and zealous clergymen to advance the moral and intellectual

* Minutes of Evidence on the State of the Poor in Ireland. 1830.

condition of the people in their several districts. We admit that much good has been done by some of the wealthy and dignified clergy; the good that still *might be done* is almost incalculable. We speak not this reproachfully; for we believe that many enter the ministry with an ardent determination to do their duty. But their zeal is often checked by the absence of sufficient motive for continuing in a place; and this seems to us one of the great causes of complaint against the national church. Half the English clergy are in the migratory state of curates, and a large number of the beneficed are either non-resident, or have the restlessness of ambition continually disquieting them. How few have the manly zeal to say, as Oberlin said, when a better living was offered him—

'No—I have been ten years learning every head in my parish, and obtaining an inventory of their moral, intellectual, and domestic wants. I have laid my plan. I must have ten years to carry it into execution, and the ten following to correct their faults and vices.'

Yet every member of the English church, when he becomes an incumbent, has the power to say this. Self-denial, indeed, he must have; but if he has it not, he is unfit to be a preacher of Christianity. The talents which Oberlin possessed, and the energy which he displayed, are by no means uncommon; the direction which he gave to them was the only wonderful part of the matter. Where are the peculiar difficulties which prevent an English clergyman from dedicating himself to the same career as the minister of Waldbach? He is surrounded, it may be said, by dissent, in some of its most intolerant forms. Oberlin presided over a Lutheran community, in the midst of Catholics; but by teaching the people the spirit of religion, and not its unsubstantial dogmas, he compelled those who differed from him to love him, and to love those who followed his precepts. An English gentleman, who was about to visit Oberlin, inquired of his postillion if he knew him. 'Oh yes,' was the answer, 'and have often heard him preach.'

'Mais vous êtes Catholique, n'est ce pas?

'Oui, nous sommes Catholiques, nous autres à Schirmeck; néanmoins, cela ne nous empêche pas d'entendre quelquefois le bon pasteur de Waldbach.'

This is the way in which a good man lives down hostility. But it may be maintained that the extreme ignorance of the people of the Ban de la Roche was an advantage to Oberlin in the prosecution of his plans, and that the half-knowledge of the peasantry of England renders them [illegible]

and to evil advisers. The answer is easy. It is in the power of a wise and enthusiastic minister of religion to convert the half knowledge of his parishioners into complete knowledge. We maintain, again and again, that the meanest of all fears is the fear of teaching the working classes too much. Corrupt institutions and 'unjust stewards' have alone to dread the progress of intelligence. It is ignorance and not knowledge which at the present moment renders property insecure. Knowledge may be led, ignorance must be driven—as any one who has looked upon the state of the English peasantry, within the last six months, must be abundantly convinced. A few such ministers as Oberlin in every county (and we know that there are such) would sow the seeds of knowledge and virtue among the agricultural population, soon to produce the best harvest. We have drawn this picture of what one right-minded man may accomplish, because we feel satisfied that very many of those who have entered upon the solemn duties of the Christian ministry amongst us are most anxious to employ their talents in advancing the good of mankind. For them is the example of Oberlin valuable. Universally throughout Ireland, in great part of England, but especially in the southern agricultural districts, the work of education requires to be carried forward, not by a parish school here and there, affording only glimpses of knowledge in its most repulsive shape, but largely, liberally, boldly, uncompromisingly. To those, on the other hand, who look to the church only as a nursing mother for their own avarice and ambition (we trust a quickly decreasing race), we shall not attempt to offer the example of the pastor of Waldbach as within the scope of their imitation.

The difficulties which the pastor of Waldbach surmounted should be a lesson of encouragement to every man similarly circumstanced, and especially to the clergy of all denominations. In our own country, too, we have seen ministers devote themselves to their duty with a zeal not less than that of Oberlin, but with success, it is true, often disproportioned to their efforts, owing to circumstances over which they had no controul In the midst of privation they have been supported by the consciousness of honest intention, and the faithful discharge of their sacred duty. Let the example of Oberlin encourage them in their honorable course. That man had no splendid wages for the Christian office, to pamper him into luxurious indolence and a want of sympathy for those by whom he was surrounded. That man did not shut himself up in his closet throughout the week, to harden his heart and narrow his understanding, by poring

over polemics, which would have been useless to his flock even if they had been intelligible; nor did he foster his pride with *that,* miscalled learning, till his ignorance of things around him was palpable to all except himself. That man did not mix in the angry strifes of political discussion, but even in the heat of the French Revolution proclaimed that 'public happiness constitutes private happiness, and that every individual ought, therefore, to live for the public good.' Oberlin bestowed his time, his talents, his learning, his little property, without stint, upon his flock—we have seen how successfully. He had a reward, which no selfish indolence can approach, and no petty vanity can estimate. In the fulness of his heart, the venerable man, looking round upon the vallies which he had filled with the peacefulness of contented industry, and upon the people whom he had trained to knowledge, and to virtue, the best fruit of knowledge, exclaimed 'Yes! I am happy!' And when he died, he was followed to the grave by an entire population, upon whom he, a poor but industrious and benevolent clergyman, had showered innumerable blessings, the least of which the idle and self-indulging lord of thousands has neither the grace to will nor the spirit to bestow.

DARTON AND HARVEY BOOKS.

There cannot be a greater proof of the degree wherein the general attention is excited towards the important subject of education, than is offered by the numerous works constantly issuing from the press, applicable to the minds and wants of youth.

The names which appear at the head of this article stand foremost among the publishers of works designed for the rising generation. An investigation of the relative merits of some of their publications may perhaps serve to assist parents in a judicious selection from the number which court their attention. In pursuing this examination, we propose to glance at the progress and present state of early education, to inquire into its most desirable and legitimate objects, and to point out in what respects we consider some favoured systems both faulty and inefficient.

By these means, those who take an interest in the subject will be better enabled to estimate the merit or demerit of books written professedly for the instruction and improve-

ment of their children. We are desirous of inducing parents, in the consideration of this important duty, to use their own understanding—to think and reason for themselves—and not blindly to adopt the plans of others, however high may be the authority.

Although great progress has been made in rational education, the science is still in its infancy, and but imperfectly understood by the generality of instructors. The light of reason has indeed dawned in all its brightness on the few; but it has not yet wholly dispelled the mists of prejudice and ignorance which have so long enveloped this subject. When, however, we consider how much has been accomplished in a short period, we cannot but augur favourably for the future, and trust that those errors which still cling to the practice of education will in like manner give place to views more enlarged and enlightened.

Till nearly the close of the last century, narrow-minded notions on the objects of education, and a careless neglect of its value, almost universally prevailed. The duty of parents in forming the minds of their children was then supposed to consist in sending them to school at a stated age, and dooming them for a certain number of years to the irrational discipline of instructors, whose study was not so much how to improve their scholars, as by what means they could render the task as little burdensome as possible to themselves. The ciphering-books of the sons, skilfully adorned with many intricate flourishes of penmanship, and the samplers of the daughters, artfully worked in all the worsted beauties of cross-stitch trees and landscapes, were taken by parents as sufficient evidence of their children's proficiency. At that period, young persons, and especially females, who were desirous of enlarging the scanty stock of knowledge which they had received at school, found the greatest difficulty in gratifying their wishes. They could obtain no elementary books, no rational explanations of the phenomena of nature by which they were surrounded; and were forced, unassisted, and perhaps even discouraged, to win their way to intellectual acquirements, which it thus demanded no ordinary energy to attain. Where this energy existed, these very difficulties, and this dependence on self, undoubtedly tended to strengthen the mind and to sharpen the intellect. Yet where the soil has not been duly prepared, and the seeds of knowledge have not been sown, how few are ever found in after life striving to enrich their minds by the pursuit of objects which ennoble our nature!

The honour of first leading the way to something more

rational and more worthy of attainment than those acquirements to which instruction had heretofore been limited, belongs to Mrs. Barbauld and Dr. Aikin. It remained for Miss Edgeworth, however, effectually to arouse *mothers* to the performance of this their first duty, to stimulate them to form the minds of their children, and to show them that education can be combined with the more tender offices of maternal love. Her's is the merit of having convinced parents of the importance of the subject; and while she pointed out the most rational method of education, her inimitable little works smoothed the path for teachers, by exciting in youthful minds a disposition to profit by instruction.

The great utility of these books, and the avidity with which they were received, soon produced a crowd of contributors to the juvenile library. It is, however, a much more difficult task than is generally imagined, to clothe good sense in simple language, and to render instruction attractive to the infant mind. Accordingly, there are scarcely any writers who approach to the excellence of those who first walked in the rational path; and Mrs. Barbauld, Dr. Aikin, and Miss Edgeworth, still retain their deservedly high station. The two first are thrown somewhat in the shade—perhaps more than they should be—by the superior brilliancy of the latter. All Miss Edgeworth's varied merit is certainly not to be found in the works of her predecessors; but if we reflect on the period wherein 'Evenings at Home' was written, it must be a subject of surprise how much this work went before its age. The good sense and feeling which pervade the whole, the uncompromising fearlessness and honesty in calling things by their right names, must, even now, excite our unqualified admiration. The leaven of worldliness is not to be detected in a single line; and amid its few contemporaneous publications, this is perhaps the only one which may be re-perused in after life without a feeling of disappointment.

In the present overflowing supply of children's books, there are of course many to be found which are wholly devoid of merit; many which are the offspring of erroneous systems; and very many which, although written in close imitation of the most approved models, entirely fail, from want of judgment and talent in their authors, who go very much beyond the letter, without understanding the spirit of those rules which they would implicitly follow. Notwithstanding all this, numerous publications may be found extremely well adapted to the improvement of youth. Children have now abundant opportunities afforded them to gratify a desire for knowledge: it rests with their preceptors to foster

this desire into a confirmed habit, by a judicious selection of the means within their reach. Parents should ask themselves what it is that they hope and expect from the plans adopted by them in the management of their children.

In the present day, a desire is expressed by almost every class of persons to give to their children the 'best education' which their means and opportunities allow. But what is this 'best education,' about which so much is said? In what does it consist? What are the results which it is desired to produce? Some—the unreflecting, it must be acknowledged—are contented simply with the means, and make no inquiry into the probable effect. With them the 'best education' is the most expensive one; and they believe their parental duty to be fulfilled in proportion to the amount of money which they have lavished on those aids to which fashion gives a factitious value. The sons may grow up idle and dissipated, the daughters vain and frivolous. No matter; the careful father casts up his items, and exclaims—'Did I not supply my boys while at college with princely incomes? Did I not engage for my girls the most expensive masters in the metropolis? Have I spared anything? What more *can* be done in education?'

Others there are who do look forward—who are ambitious that their children shall shine in the world; but whose false estimate of that world's opinion is equally adverse to a right elucidation of the question; and who, centering their wishes solely in rank and fortune, are influenced accordingly in their ideas of 'the best education.' These parents are impressed with the advantages that may arise to their sons from mixing in early life with the scions of nobility, little reflecting how unlikely are these dreams of ambition to be realised; and that, should their sons participate in these worldly aspirings, and even succeed in the pursuit, it may—nay, we might almost say it must—be through the sacrifice of that true nobility and independence of mind which it were prodigal to barter in the exchange. For their daughters, if they are so instructed as to eclipse those around them in their varied accomplishments, vanity is gratified, and the purposes of education are thought to be fulfilled.

Other parents take higher ground, and erudition is their idol: they believe that the whole sum and substance of the 'best education' are comprised in pouring into the minds of their unfortunate children the greatest possible quantity of book knowledge in the least possible time—unreasonably expecting that this will profit them in after life, by giving to them studious and reflective habits.

These classes are, however, daily diminishing, and the greater proportion of parents are desirous of advancing the rational education of their children. Mothers especially are becoming tremblingly alive to the responsibility attached to their condition, and unaffectedly anxious to pursue the right path. For this purpose it is indispensable to have some fixed ideas on the subject, that the means used may bear some relation to the effect desired. It cannot be too strongly impressed on those who are about to undertake the duties of instruction, that they should accurately define to themselves the general result which will satisfy their wishes. Surely the most rational aim and end of intellectual education must be, *to instil into the mind the love of knowledge, and to endue it with the power of acquiring this in after life by its own unassisted exertions*. Why do we wish our children to be wise and clever? Is it not because we feel, that in proportion as they exercise the faculties of thought and reason, so will their sphere of usefulness be enlarged—so will those habits and feelings be excited which tend to happiness and virtue. If their intellectual attainments are to be independent of these objects—if they fail to purify the heart and refine the mind—then indeed has education been pursued without profit, and without yielding those results which good instruction is capable of producing. Next to the cultivation of our social affections, the pursuit of knowledge is susceptible of being made the greatest source of happiness. Should we not then, by every possible means, strive to give to our children this invaluable blessing, and by teaching them in their early days to use their faculties, make them feel that to them there is no sealed book—that they have the power, if they have the will, to acquire all that man has already acquired?

It would lead us too far from the present inquiry to discuss here, whether public or domestic education is most influential in forming the mind and heart to the love of knowledge and virtue. In either case the mother's early care is necessary, and must be beneficial; for should the pupil be removed to the discipline of a school, there is no candid tutor who will not perceive and appreciate the superior intelligence of children who have been taught by a judicious mother.

Our present object is to inquire into the means afforded to mothers for forming the minds of their children.

Among the numerous works which have called forth these remarks on education, those of Mrs. Hack claim our peculiar attention, as being eminently calculated to assist mothers. This lady has written on several subjects, and has shewn herself most successful in the power of attracting and

riveting the attention of children; while amiable feeling, pure morality, and high principle, characterize all her works. There is no ostentation or sickly display of sentiment, but all is nature, and speaks to the heart as well as to the mind. In her 'Winter Evenings' she has had the happy art of condensing all that is interesting and amusing in the best narratives of voyagers and travellers. These little volumes are among the chief favourites in the juvenile library, and fully confirm the author's opinion, that children whose tastes are unvitiated prefer truth to fiction. She thus remarks in her preface to this work.—

'When the "quivering light" of reason dawns on the youthful mind, is not "the chequered field of man" the natural and most attractive object of its speculation? Every child hopes to be a man. The business of childhood is to prepare for the full exertion of the mental powers when they shall arrive at maturity. Then will not those unfolding powers be stretched and stimulated in the safest and wisest manner by following the natural impulse of hope and curiosity? Let the actions, and enjoyments, and sufferings of men, form the subjects of the contemplation of children. Care indeed will be necessary in selecting, not only such scenes and events as they can entirely understand, but such as ought to be presented to them. Examples of courage, of patience, of fortitude, of generosity and benevolence, and above all of reliance on the supreme Disposer of events, on occasions of danger and distress, will have a natural tendency to strengthen and to elevate the character. But to obtain this desirable end, the actors as well as the events must be real. Children must not suppose that a scene is *got up for them*, to answer some particular purpose: they must feel the sober assurance that they are treated like reasonable beings, and admitted to the knowledge of the truth, as they are able to understand it.'

Others likewise have pursued this path with success. 'Maritime Discoveries,' by Miss Taylor, is simply and pleasingly written, and perhaps, as being more elementary, its perusal may with advantage precede that of 'Winter Evenings.'

'Harry Beaufoy' is another production of Mrs. Hack—in which the mechanism of the human frame is explained so simply and so clearly, that children of ten years old can fully understand and take an interest in the perusal. We feel that nothing we could say of the general tendency of this volume would be so satisfactory as a few short extracts from it.

'Mrs. Beaufoy laid her hand upon Harry's shoulder, and in an earnest, affectionate tone of voice said, 'Listen to me, my beloved child. You have hitherto believed a fact to be true if I told you

that it was so, because you cannot recollect that I have ever deceived you, and therefore you have no reason to doubt my word But did it ever occur to you that it is possible I may, in some things, be myself deceived—that I may draw a wrong conclusion from some particular fact, and that on some subjects I must necessarily be ignorant?' p. 21. . . . . ' And sometimes I am mistaken, Harry, and suppose I know a thing which on further examination I find to be different from what I had supposed it to be. Now there is one subject, my dear child, on which you ought not to trust me or any other human being. You ought to be sure of this fact for yourself; so sure as not to leave the possibility of a mistake—it is the existence of that Almighty and Benevolent Being who is the first great cause of all that our eyes behold—the contriver, and maker, and preserver of everything.'—pp. 22, 23.

One other extract must be given: Harry is praising the bee and censuring the butterfly, and Mrs. Beaufoy is made to reply—

' You are mistaken, my dear boy. The industrious bee and the giddy butterfly are equally intent upon their present gratification, and equally regardless of future consequences. There is neither wisdom in the bee nor folly in the butterfly; both are equally pursuing the end of their being, and each finds its proper and present gratification in the habits which are suited to its respective modes of life. The butterfly is not intended to live through the winter: why then should it lay up a store of food?'—pp 139, 140.

In no branch of education has there been a more striking improvement than in works relating to history These are now not mere records of dates or abridgments of facts wherein children can take no interest, and which, coloured by a strong party bias, give false and prejudiced notions The only pleasurable recollections derived a few years back from juvenile historical studies, were the cuts which adorned Mrs. Trimmer's Histories; but the meagre information which the volumes contain afforded no correspondent amusement, and youth finished their education, ignorant of the true philosophy of history, and disinclined to pursue the subject. In the present day the history of almost every country may be found written in a manner calculated to interest young minds, and to awaken curiosity for further information. It has been shown that something besides the mere knowledge of facts can be drawn from the page of history, and by no one has this been done with more success than by Mrs. Hack. Her 'Grecian Stories' are full of interest to younger children, while her 'Stories from English History' will be perused at a more advanced age with pleasure and profit. These volumes impart correct historical knowledge, and at the same time

convey beautiful lessons of morality, the highest and best use of history. They are written in the form of conversations between a mother and her children; the machinery is, in this respect, so ably and pleasingly sustained, that the reader has no difficulty in imagining such conversations to have actually occurred. The moderation and impartiality with which characters are discussed, the entire freedom from all party-spirit and bias, and the exalted sentiments which shine through every page, render this a valuable work to every lover of truth and virtue. Our remarks may, perhaps, appear too laudatory, unless supported by proofs drawn from the work itself, nor can we hope to do it justice by the few short extracts which our limits will allow us to give. We must confine ourselves, in these, to passages calculated to attract the attention of mothers, referring to the volumes themselves for the interesting and entertaining details and anecdotes with which they abound.

'I admire the character of Alfred far more than you do, my dear Harry: for you think of him only as a brave prince, who endeavoured to protect his subjects from a horde of merciless enemies. Any courageous man might have done that; but Alfred possessed qualities far more heroic than a victorious general: for I dispute that man's claim to the title of a *true hero*, of whom nothing better can be said than that he was the principal actor in a great and bloody tragedy. Alfred had far higher claims to our admiration. It is not in the first seven years of the reign of Alfred that we must look for the traces of that wisdom and vigilance which afterwards distinguished him. The only plan he seems to have had in view during that period was to obtain a temporary peace. He made a bad use of his superior knowledge, sought only his own pleasure, and despised everybody about him. But while he was thus earnestly pursuing the knowledge on which he set so false a value, prizing it for itself, and not as the means of doing good, he acquired habits of thinking and reasoning; and it was upon *these* habits that his reformation was founded. When adversity compelled him to give up his studies, he applied his powers of reflection to the common affairs of life; he considered the consequences of his actions, and thus his studious habits, which had nourished his pride and alienated his people, proved the means of enlightening his understanding, correcting his temper, and reforming his conduct. Thus, applying his previous habits of reflection to the real business of life, he gained instruction from every event, and nobly profited by the lessons of adversity.'—First Series, pp. 29, 40, 48, 58.

Is not this a more useful, as well as more just view of Alfred's character, than that generally presented to children? while Richard the Third, who is only known to them as

'the hump-backed murderer,' is, by the impartiality of the historian, brought within the pale of humanity.

'We must particularly attend to the statement of *facts*, and make great allowance for the prejudices of party writers, when they are giving their own opinion of the character and motives of an obnoxious person. It would also be no more than justice requires, to examine, as far as we have the means of doing it, what were the prevailing manners and vices of the times, and to compare the actions of such an individual with those of his contemporaries. If we do this in the case of Richard the Third, we shall find that there is no just foundation for regarding him as that monster of hypocrisy and cruelty which prejudice has represented. On the contrary, his conduct on some occasions proved that he had a heart and sympathies like other men. He was indeed irritable, peremptory, and impatient of opposition to his plans or wishes; but these are very common faults. You, my dear children, must sometimes be conscious of their existence in yourselves, and you may occasionally observe their effects in the conduct of others. When such dispositions do not manifest themselves by alarming acts of wickedness, we are too apt to disregard their tendency to produce confirmed ill-temper, and too apt to forget that the secret indulgence of wrong feelings is the surest way of preparing ourselves to fall by the first powerful temptation that may assail us.

'Lucy—Then you think that Richard was not so very much to blame, but that his memory is unjustly treated?

'Mrs. B.—You mistake my meaning; for though his character has been treated with injustice, this is quite compatible with his having been, not only very much to blame, but exceedingly guilty. He has indeed been accused or suspected of murders which there is no just reason to believe that he committed; and of hypocrisy so unparalleled, that if credited it would by destroying all sympathy for him deprive us of those striking lessons his character is calculated to afford. History presents us with a splendid picture of MAN under every imaginable variety of character and circumstances, but subject to certain general principles of action or motive to action, which bind together the whole human race in one chain of sympathy, thus rendering the virtuous energy of some, and the crimes and misfortunes of others, subjects of interest and instruction to all. We should therefore carefully avoid unduly exalting or degrading the heroes of the scene, but regard them as they are, creatures of like passions with ourselves—like us, passing through a state of trial, and surrounded with circumstances connected with evil and with good. These circumstances have a natural influence over our conduct; and if our understandings are weak, if we have no moral energy or fixed principles of religion, they will probably govern us as animals are influenced by whatever acts upon their senses. Every intelligent being knows that he has reason to direct

his choice, and duties to perform; and that it is incumbent upon him to consider the consequences of his actions both to himself and others.'—Third Series, pp. 3, 7, 8.

There is an original vein of thinking in all this lady's observations on those virtues and qualities which are too generally held up to the indiscriminate admiration of the young.

'Patriotism, especially when called into action in a barbarous age, too often partakes of the ferocity by which it is surrounded. It has ever been acknowledged as a sublime principle, the source of heroic emotions, which none but great minds can truly feel; and being always exerted at the price of many personal sacrifices, nobly devoting itself for the benefit of others, it irresistibly compels the sympathy of mankind, wins their admiration, and justifies their praise. Society has made a wonderful progress in civilization and humanity since William Wallace attempted the deliverance of his country; and while we refuse to credit the exaggerated accounts of his enemies, who describe him as more cruel than Herod or Nero—as one *that never had pite of Inglisman no ways*, we may believe that he plundered, burnt, and slaughtered often without mercy; for such was then the general manner of carrying on war: yet perhaps we may fairly say, that the cruelties of Wallace belong to the barbarous character of the age he lived in, but that his noble spirit was his own.'—p. 77.

Again:

'The notions of honour inspired by chivalry were not to be trusted as a rule of life. Edward the Third and his equally celebrated son had but too little sympathy for the evils occasioned by war, and they were regardless of its justice; but the pomp and glorious circumstances attending were their passion; and the excitement and applause produced by their heroism afforded them the highest gratification. It would be absurd to expect *consistent virtue* from any principle of action that springs from pride or the love of applause, yet many striking traits of honour and generosity adorn the annals of chivalry, which can boast of heroes but little inferior to those of Crecy and Poitiers. Froissart relates a pleasing instance of the honour and generosity observed by the knights of the fourteenth century in their intercourse with each other. In the evening, when each retired to his tent with the knights and esquires he had that day taken, the victors asked the captives what they could pay for their ransom without much hurting their fortunes? and willingly allowed them to fix the price which it would be convenient for them to pay, without feeling any distrust of their honour. Yet these were the very men who would drive off the cattle, destroy the crops, and burn the cottage of the peasant, without one feeling of compunction. In this campaign the courteous and humane Black Prince laid waste the whole country by

fire, from Bordeaux to Narbonne. So partial and inconsistent was the humanity of chivalry.'—Second Series, pp. 207, 208, 213.

Biography, equally with travels and history, may be made to assist in the instruction as well as the amusement of youth. A skilful display of the difficulties which great talents have sometimes had to encounter, and the energy and perseverance which have been required to surmount obstacles in order to attain to excellence or success, may, in the hands of an able writer, be made the means of moral as well as intellectual improvement, supplying the highest motives to useful ambition, and regulating and directing the aspirings of genius.

Few works of this description are, however, wholly unexceptionable; there is too much either of moralizing or of dry narrative—so difficult is it to avoid extremes. A little book was published several years ago by Darton and Harvey, entitled 'Buds of Genius,' and intended as an introduction to biography. It is written simply and naturally, and is calculated to induce in young children a taste for this kind of reading. The author of 'A Sketch of the Life of Linnæus' has, we think, also completely succeeded in the art of rendering biography amusing and instructive. This short account is made, we might almost say, deeply interesting; and the reader, be he young or old, will follow with lively sympathy the steps of the philosopher from poverty and obscurity to riches and fame.

Mrs. Wakefield has been known as a writer for many years; and to judge by the numerous editions which her works have reached, she has been long considered as a popular writer. Therefore, in noticing those books which may be useful to a mother, we ought not perhaps to pass her entirely without comment; the more especially as her works make so conspicuous a figure in the catalogue of Messrs. Darton and Harvey. This lady has certainly been most indefatigable in her literary occupations, and has produced many volumes on almost as many subjects. When she first began to write, there were fewer labourers in the field, and on this account her books may perhaps have obtained a greater circulation than they would have commanded in the present day. They were found useful before better things appeared, and it would perhaps be ungracious wholly to discard one who for many years was so sedulously employed for the improvement of youth. In her [illegible] works, Mrs. Wakefield certainly affords some entertaining information, but they are not set off by the graces of style and man-

ner; and when she ventures upon the task of explanation or description, the immeasurable distance between her and the author of 'Harry and Lucy' is plainly perceptible. This lady has nothing original about her; the machinery of her books is clumsily managed, and her children are the most unnatural little pedants in the world. To give an example; her 'Mental Improvement' opens with the following conversation:

'Sophia—How happy are we, my dear sister, to be blessed with kind parents, who devote so much time to our instruction and amusement! With what tenderness do they listen to our conversation, and improve every subject that arises to our advantage!

'Cecilia—I am never so happy in any other company; they have the art of rendering instruction and study agreeable. Though I tenderly love my governess, I feel such a superior attachment to my mamma, that I am not able to express it; and I am sure Mrs. Selwyn will not blame me for it, for she always advises me to look up to my father and mother as my best and kindest friends.

'Sophia—Mrs. Selwyn, our worthy governess, is too wise and discreet to be jealous of our preferring our parents to everybody; she would sooner direct us to regulate our affections properly, and undoubtedly give them the first place.'

It would not, however, be fair to this really respectable writer, to take leave of her with the foregoing quotation. She is always found to inculcate moral, though rather commonplace sentiments: it is her aim to lead the youthful mind to religion and virtue; and she occasionally evinces some sound and rational views upon the subject of education.

Mrs. Wakefield's 'Instinct displayed' is found by some young people amusing, and it forms one among the number of those books which tend to give interest to the study of natural history. Very young children delight in looking at pictures of animals, and in hearing anecdotes concerning them. The press abounds with writings upon this subject, adapted to all ages. In the 'Natural History of Quadrupeds, by a Lady,' a great deal of information is very plainly given. Its whole tendency is to excite good feelings in the young reader, and to induce him to treat the brute creation with compassion and tenderness.

Bingley's 'Animated Nature' is likewise a very useful book. The anecdotes which are interspersed are generally interesting, and the classification is so natural and so devoid of all technicalities, that the pupil will acquire this information without considering it part of his school learning. This is as it should be—enumerations of classes and orders, in

terms to which the learner is unaccustomed—which he finds it difficult even to pronounce, and much more so to remember, should be carefully avoided till the pupil has acquired a love of the pursuit sufficiently strong to submit to the labour of mastering its technical language. We see this fault strongly exhibited in a small volume entitled 'Rudiments of Conchology.' The well-executed coloured engravings with which it is illustrated immediately attract attention, but the science itself is soon discovered to be repulsively dull in consequence of the numerous technical terms with which the work is crowded. To become acquainted with, and properly to apply them, would require an exercise of memory and a degree of attention which would most generally be deemed disproportionate to the value of the attainment. This defect does not display itself so forcibly in the 'Rudiments of Mineralogy,' by the same author; the classifications here are not so formidable, and it is in consequence rendered a less forbidding work. Perhaps this is rather attributable to the subject, the utility of which is more apparent. If even a mother succeeded in convincing herself, it would be a very difficult task to persuade her child, that any advantage could be found in committing to memory the technicalities of conchology. This species of knowledge it never can be requisite for young people to learn, unless they show a decided taste for the pursuit. Some mothers, however, are so solicitous that their children should become acquainted with any and every subject upon which works for young people are written, that it is to be feared lest many a little victim of ill-judged anxiety may be doomed to learn by rote 'Parmophorus, Emarginula, Fissurella,' &c. . . . . to the hundredth term.

The 'Geography of Plants,' by Mr. Barton, though capable of being used with advantage in the instruction of youth, may likewise be perused with interest and profit by all classes of readers. We notice it in this place, as an exemplification of the fact, that much information may be imparted without the introduction of any but the most perfectly familiar terms. The names of the plants are all given in English, and their botanical terms are placed at the foot of the page. The maps which illustrate the work are, we believe, quite original. They are maps of the principal divisions of the world, in which the names of plants are substituted for the names of places—cultivated plants being distinguished by Roman letters, and those growing wild by Italics. By a reference to these, the relative vegetation of the whole earth is more

clearly seen than by anything which could be written on the subject unaccompanied by such happy elucidations. The author justly observes that

'It is a subject which appears well calculated to interest every one who has a taste for the study of nature; but while wrapped up in the technical terms of botany, as well as in a foreign or dead language, the number is comparatively small of persons who are qualified to participate in the pleasure which it is capable of affording.'

This book is written in a plain manner, giving a comprehensive view of a very interesting subject, and is peculiarly adapted to excite a love of Nature, and to induce a more particular examination into her beautiful works.

'The Wild Garland,' by the author of the Life of Linnæus, is an unpretending little book, applicable to the same object. It does not profess to give any regular insight into botany as a science, but the writer is evidently a sincere lover of nature, and perfectly familiar with that study for which she would excite a taste.

'It professes not to throw any fresh light on the subject, nor to initiate by any new method into its hidden mysteries; but simply to give additional interest to the study of botany, by the association of ideas poetical, historical, or classical, with some of the beautiful productions of our fields and woods.'

An author who succeeds in giving to the pupil a desire to go farther in the study of any subject, does infinitely more service to the cause of education than he who writes the most elaborate treatise. There are three principal causes which prevent so many writers from producing this desirable effect.

The first cause of failure is want of *simplicity* in elementary books intended for the earliest age. We are aware that it is a difficult task to bring the mind down to a level with the infantine capacity. Puerility is too often mistaken for simplicity, and an unmeaning, familiar jingle, almost approaching to vulgarity, is considered better adapted to catch the attention of the little scholar than playful good sense. Even those who in their prefaces profess to be aware of this, as well as of numerous other faults in writers who have preceded them, fail in their attempts to sustain simplicity of language. They begin with sentences adapted for mere infancy, but soon, forgetting their caution, plunge the poor child into all the intricacies of obscure phraseology. There is a striking example of this in a small elementary book translated from the Italian of Count G. Bardi. It begins thus:—

'Man stands straight on his feet. His head is straight on his

shoulders. Beasts have a long snout. They walk on four feet. Man has two arms He has two legs. He takes things with his hands The sole of his foot lies on the ground.'—p. 1

At page 68 we find this *truly luminous* description of a bee-hive:—

'Their work is composed of combs placed vertically, and consisting of horizontal cells, joined together at the sides and bottom: the cells have six equal sides, and the bottoms, which are common to two opposite ranks, form each three equal lozenges It has been proved on geometrical principles, that this form requires least substance, and confers the greatest stability.'

These two short quotations form together exactly one page, sixty-eight of which would not comprise many lessons. The writer must therefore suppose, that after the lapse of a very short interval, the child's intellect would have ripened surprisingly, or that his book possessed the miraculous power of inspiring him with intelligence sufficient to comprehend a description, that perhaps no one previously unacquainted with the subject could understand It is not any want of indulgence towards the little work before us which prompts these remarks; we are actuated solely by a desire of pointing out to those who write for children, faults against which it is essential for them to guard.

The second cause of failure is extremely prevalent in all children's books except those of the highest class. Too much heterogeneous information is crowded into works written professedly for amusement; and, in consequence, the mind of the young reader is bewildered and fatigued, instead of his curiosity being excited. Some writers, in attempting to follow the example of Miss Edgeworth, wholly mistake her design, which is not merely that of imparting instruction, but of creating a desire for knowledge. They estimate their books in proportion to the number of subjects on which they treat, without having any regard to method or measure. There is a constant design on the little reader to inveigle him into some ambush of learning. While engaged in the delights of a ball, he finds himself suddenly entrapped into a lecture on insects, and a party of pleasure frequently terminates in a dry dissertation on natural philosophy. In one book the little hero, with a taste peculiar to himself, is made to derive great entertainment from the second reading of an obscure, abstruse lecture on astronomy, and to take delight in the information communicated, even if it has not the remotest connexion with the subject under consideration. After a rambling discourse on the swallow, an account of sponges is thus aptly introduced:—

'HENRY—Thank you. Look at this piece of *fungus* I have broken from the root of that old beech: it looks like sponge. Where does sponge grow?'—*Henry and his Tutor*, p. 8.

The fault which we are now exposing is perhaps not so much that of writers as of parents. There is at present an unnatural demand for these productions. Many persons are painfully anxious that their children should learn everything at full speed, and be what is called clever. Accordingly, in every recreation knowledge is sought to be insinuated with an eagerness which defeats its own purpose; for, pressed down by the overwhelming load of learning, the child, who was fondly expected to spring up into a giant, remains nothing but a pigmy.

The minds of parents having been powerfully roused to the great duty of educating their children, it is perhaps only a natural consequence that, for a time, they should take the opposite extreme, and that where too little had been so long done, too much should now be attempted. The fault of the present day is accordingly that of loading the young mind with more aliment than is beneficial to its growth and expansion. We would earnestly strive to guard it from this repletion. Sound and rational views have of late been so much disseminated by those who reflect on the subject, as to lead to the hope that in a few years this system of ultra-education will soften down into the happy medium.

The third cause of failure which remains to be examined is a more fatal error than either of the foregoing: it does not arise only from the incompetency of writers, but the badness of a system. Memory is put in too great requisition, and the number of words is beyond all proportion greater than that of the ideas acquired. A rational mother will look beyond the present moment for her children, and if convinced of the inefficacy and pernicious tendency of a system, will willingly abandon it. The education of very young children is now much more free from error than that of a more advanced period; and the infant mind is rarely, in the present day, disgusted on the threshold of knowledge by austere looks and difficult tasks.

Is it natural that the mind, as it gains strength by exercise, should become less pleased with the exertion? This involves so apparent a contradiction, that the solution can only be found in the injudicious manner wherein education is conducted. If children be led to use their understandings—if they be induced to think, compare, and reason—their curiosity will continue to be excited, and their desire of acquiring knowledge will lead them willingly to overcome difficulties, if the

instructor be careful that none be presented which it is not in their power to surmount. The mere pedagogue may smile at the idea of children reasoning; but children, and very young ones too, delight to have their minds exercised, provided it be done judiciously, and that the effort be discontinued before it becomes fatiguing. The desire of acquiring new ideas evinces itself in such early childhood, that nothing more would appear necessary in education than gradually and sparingly to administer to this appetite for novelty, by displaying some of the exhaustless treasures which are within the reach of all who seek them. How lamentable it is that this spirit of inquiry should ever be crushed; that the youthful mind should be loaded with studies which cannot interest it, and which we may fear will quickly create a disgust for the knowledge forced on it in a form so distasteful!

We can scarcely too much deprecate that system of instruction in which every valuable rule is committed to memory, where every species of information, useless as well as useful, is made the subject of question and answer, and the words of the author are to be carefully repeated. So far from insisting that pupils should go through these wearisome tasks, the rational instructor would never require them, and would interdict the system of answering questions by rote. Let it be remembered that reasonable beings, not parrots, are the objects under instruction, and that they have other and higher faculties to be cultivated than mere memory. Now it happens, that of all the powers of the mind, memory, as far as it is merely the aptitude of learning by rote, is of the least consequence to us in after life; and yet this faculty, useful only as a subordinate,—this humble assistant to the nobler powers of judgment, reason, and invention,—usurps their place, and reigns paramount in the academic hall. It would be as reasonable, in developing the physical powers, if only one set of muscles were brought into action. It is said by the advocates for mnemonic tuition, that memory alone can be cultivated in childhood, as the other powers of the mind do not show themselves until riper years. This is entirely a fallacy: it is always found, where the attempt has been made to call forth higher faculties, that memory is precisely that one which they find most irksome to exercise, except as the handmaid to other powers. Familiar explanations, when unaccompanied by hard words, will be understood and applied much more readily by the pupil than if he had learned a form of words by rote; and while he is thus adding to his stock of knowledge, he will at the same time be habituating his mind to the formation of distinct ideas.

It will certainly sometimes happen that preconceived and erroneous notions will render a satisfactory explanation the work of time and patience; but this only proves of how much importance it is to remove the difficulties which perplexed the little inquirer, and not to allow him to rest satisfied with words instead of ideas. Hence it may be easily seen why memory is singled out, to the exclusion of the other mental powers. It is much less trouble to instructors to hear a lesson than to give an explanation; and the secret spring of their whole argument is discovered in the concluding exclamation—'How can it be expected that we are to sacrifice ourselves to such irksome drudgery as to explain the never-ending questions of a curious child?' During the hours allotted to study, unceasing attention on the part of the teacher is certainly required; but we are now discussing what is most advantageous for those who learn, and not what is most pleasing to those who teach. In the satisfactory progress of her pupils the mother will find her reward. In a few—a very few—years, she will view them pursuing that path with pleasure over which she has conducted them in the rugged way, and her superintendence will then be only occasionally required to guide them through any intricacies which may occur. Should she at length see them, in the full vigour of their intellect, outstrip her in the race, how will she exult in the perfect development of those powers which she first called into action and nurtured into strength!

When the system of cultivating the memory alone is wholly pursued, instead of inviting on to knowledge, every thing is done to create and confirm a distaste for it. Long tasks are assigned whose meanings are not understood, and the memory is stored with terms to which no ideas are affixed. The understanding has no part in education: a quick memory gains the palm; and, in consequence, the pupil grows up without ever having learned to think. It is essentially necessary, in plans of rational education, never to teach children anything which they cannot perfectly comprehend: if a subject prove too abstruse, put it aside till their more ripened intellects enable them to comprehend it. Perhaps, in pursuing this method, they may sometimes appear backward in the race; and maternal vanity, or rather an amiable diffidence in her own powers of instruction, may induce a mother to stimulate her pupils to injurious exertion. She cannot be too earnestly dissuaded from this course. Let her ever keep in recollection, that she must be carefully storing the minds of her children with clear ideas, giving to them the love of knowledge and the habit of exercising their

understandings; and that it is of the first consequence to the success of her efforts that she does not make learning assume a repulsive shape

The publications of Darton and Harvey are nearly free from the defect which has called forth the above remarks. Catechisms on every imaginable topic are not to be found in their long catalogue of books, and we can only single out one work to exemplify our observations. This has, however, reached the seventh edition, and would on that account alone deserve some notice. The title of the work is 'English Parsing, by James Giles.' Although we had already felt great sympathy with children in all their many trials, yet, till we saw this book, we never suspected the extent of their inflictions. We were not aware that they were ever constrained, except in acquiring the learned languages, to follow the truly barbarous custom of repeating the rule at every word they parse. What possible effect can these repetitions have on a child, except to disgust him with grammar?

The greater proportion of what are called school and class-books are intended for the cultivation of the memory alone. From what has been already observed, it is very evident why these have obtained so much favour. But in those schools where education has been conducted in a rational way, and where the general intellectual improvement of the pupils is made the first object, these books have been discarded. In domestic education they certainly should never find a place. The imperfect knowledge obtained from the 'Preceptor's Assistant,' and other books of that kind, is worse than useless—it is pernicious. Those young people who have learned so many words at the expense of so much time and labour, are too apt to be vain of their superficial acquirements, and to be quite satisfied that they are wonderfully clever—have they not gone 'right through the book,' and pronounced every hard name with perfect propriety, and what greater achievement can possibly be required on these subjects? It is this knowledge of mere words which makes pedants; those who have penetrated beyond the surface, never pride themselves on their acquisitions, feeling how very small these are, in comparison with what is still to be learnt. To be able fluently to reply to abstruse questions, is by the many considered synonymous with understanding them. But would any reflecting parents be willing that their children should rest contented with such knowledge?

It is highly useful that youth should be led to acquire general information, and that their studies should not be confined to the Latin and Greek accidence; but let it

ever be borne in mind, that there is a great difference between *elementary* and *superficial* general knowledge. In the one case the pupil is led by easy steps into the right path: the way is clearly pointed out to him; and, whether his taste lead him to pursue it farther or whether he only proceeds a few paces onward, he walks in the clear light of day. In the other case, everything is seen through the medium of a fog, the paths are dimly discerned as in a labyrinth, and the whole appears a mass of confused images. Books of this kind certainly present a very imposing appearance to the unlettered, and we need not be surprised at their being found so attractive, especially in 'establishments for young ladies.' Imagine only one volume within the compass of about three hundred duodecimo pages, comprising instruction in the form of question and answer upon every art and science, besides innumerable miscellaneous subjects, from natural philosophy and religion, down to heraldry and the most appropriate manner of addressing lords and ladies—all these, too, requiring nought for their attainment save an exercise of the memory. Armed with this potent engine, the head of the establishment takes the field; and in her prospectus or manifesto, promises anxious mammas to accomplish the victory over subjects, the very names of which the good lady herself might have remained in happy ignorance of, but for the aid of so inestimable a treasure. Works of this genus are highly prized by that numerous class who feel no pleasure in the act of acquiring knowledge, yet desire the appearance of its acquisition. But 'The Preceptor's Assistant,' one of the volumes which has called forth these remarks, holds out a still further attraction to ladies in the addition of a catalogue of such Latin phrases and their English meanings as are frequently used in books or in conversation. These pocket cyclopædias, if compiled with ability, would not perhaps be without their use as works of occasional reference to those who have not enjoyed many opportunities of acquiring general information. If people will write and publish such works, it is, however, incumbent on them to use every precaution against the admission of incorrect statements and erroneous principles. 'The Preceptor's Assistant,' and the 'Parent's Catechism,'* both written by the Rev. David Williams, are by no means guiltless in these respects. Among the numerous inaccuracies, to call them by no harsher name, which abound in these works, one or two examples from each will perhaps suffice. What shall we say of the carelessness which states the revolution of our

* These books are not published by Darton and Harvey.

attendant satellite the moon about the *sun*, to be performed in $27\frac{1}{3}$ days nearly? The meaning really intended is obvious to those who have the slightest knowledge of astronomy—but they are not the parties whom Mr. Williams professes to teach. We will not weary the reader by a criticism on the vague description of water given in both books, wherein the relative component parts are stated without defining whether these relate to bulk or weight—if the latter, according to the most approved analysis, the proportions are incorrect; but if the former, as must be inferred from the preceding answer, they are then egregiously false. It is made more palpably ridiculous in the second of these books, where the component parts of water are said to be 85 parts oxygen and 15 *nitrogen.* The preface informs us, that in consequence of the increasing and constant demand for this book, the present is a stereotyped edition, and therefore it may be presumed more than usual care was bestowed on its examination previous to publication. How many thousands have been and will be forced to learn that water is composed of oxygen and *nitrogen!* while some who appeal from Mr. Williams to Mr. Williams will be sadly perplexed to determine, whether the stereotyped nitrogen of the 'Parent's Catechism,' or the later printed hydrogen of the 'Preceptor's Assistant,' be the true word. As to the different *meaning* which each word conveys, a pupil who is taught by these question-and-answer books would rarely pause to inquire. Should one, however, be more adventurous than the rest, and seek to emerge from this sea of words, on, on he is hurried to the next and the next answer—answers, not questions, are the learner's duty. It may perhaps be thought of little moment that the pupil is made to consider the Georgium Sidus as being only four times as large as our earth; but it *is* of consequence that the learner should not imbibe the false notion that a sphere whose axis is 7900 miles, is nearly one fourth part as large as another sphere whose axis is 35,000 miles; such being given by Mr. Williams as the diameters and relative magnitudes of the two planets—an error into which the Reverend author could hardly have been betrayed by carelessness alone. These books abound with statements copied from vague speculations, but which are made with the confidence that alone should accompany the best established facts, and with assertions palpably and grossly absurd. 'The quantity of mineral and saline particles which rivers wash from the different soils through which they pass, and carry into the sea,' is assigned as the cause of its saltness. No reason, however, is given why these rivers convey the *whole* of the saline par-

ticles to the sea, without suffering any to mix in their own fresh streams. It would be an unprofitable, as well as a disagreeable task, to point out other glaring defects, which force themselves on our attention in turning over the pages of these volumes. Enough has been said if we have induced any mother to reject this kind of tuition for her children.

Some books there are of question and answer of a very different description, and which, no doubt, have merit. The mode of explanation adopted in these is calculated to impress upon the mind much useful information, and, if employed sparingly, might perhaps assist the business of instruction. We have seen a little work, taken from the French, entitled 'Why and Because,' which, we think, may be classed among these few exceptions. Here all the phenomena of common occurrence, about which children may be led to inquire, are clearly and simply explained. But even such as these we would recommend to be used only as text-books, and the reasons should be given not in the exact words of the printed answer. Children fancy a rule or explanation out of a book is much more difficult of comprehension than one given from the mouth of the teacher.

A striking improvement has lately taken place in the manner of teaching geography, and no better proof can be adduced of the advantages resulting from a departure from the old method of learning words by rote, without giving the memory any auxiliary in the irksome task. The present rational mode of teaching geography by blank maps, and of tracing the routes of different travellers, instead of being a task, becomes an amusement to children, while it gives them a much clearer conception of the relative situations of countries than if they learned a long list of definitions and the names of every town and village, lake and river, in the known world.

In the 'Child's Atlas' and its companion, geography is clearly and simply explained; and they are, in almost every respect, what elementary books should be.

Among the numerous books written for the instruction of youth, it is some matter of surprise that so little has been attempted towards simplifying the elements of the lower branches of mathematics. Even arithmetic is still very universally taught more as a mechanical art, dependent on the memory, than as a science. This is a part of female education which is too commonly neglected; the best governesses seldom understand anything beyond the practical operations of the four first rules in arithmetic—to be initiated in the mysteries of the rule of three and of practice argues a rare

degree of proficiency. Ladies are, therefore, seldom sufficiently conversant with the rationale of figures to make, in this respect, good instructors to their children; and perhaps a treatise on rational arithmetic, in which the nature and property of figures should be clearly and familiarly explained, might prove useful in giving to mothers a better idea of what they are about to teach. If arithmetic be properly explained, if the child be allowed to use his understanding, without being disgusted with long sums, the progress will be pleasing as well as rapid. Geometry and algebra may likewise be taught with advantage to youth of both sexes, and can be understood at a much earlier age than is generally imagined, while no other study tends so much to give habits of patient investigation and solid reasoning. To attain any beneficial results, however, the manner of teaching mathematics must be widely different from that which still very much prevails, and was universally in fashion a few years back. The rules of algebra were learnt by rote, without being in the least comprehended; and we have known all the propositions of the first few books of Euclid committed to memory without the student understanding or feeling any of the beautiful truths of geometry, and without having the most distant perception of the chain of reasoning which runs through the whole! As reasonable would it be to drag him blindfold over a picturesque country, where he is only sensible of the ruggedness and weariness of the way, and thence expect him to imbibe a love of travelling. These remarks on the study of mathematics have been called forth by a short work on Perspective, published by Darton and Harvey—the only one at all approaching to mathematics in their whole collection. This treatise, by Mr. Daniel, purports to be written for the use of ladies, and those who do not understand geometry. We confess we are no friends to this description of books, especially for juvenile education. The work before us appeals neither to the senses nor to the reason, but everything is to be taken for granted, and done as described—thus assuming that ladies are not reasoning beings, but imitative creatures, like monkeys. We should consider that attempts at rational education had entirely failed, where the pupil could be contented to avail herself of practical rules, without examining into their correctness.

MISCELLANEOUS.

FRANCE.

The Journal d'Education for July last contains some good remarks on the mode of teaching children to spell, or rather to write words correctly. We are induced to draw attention to this fact, to show those of our own countrymen who still follow the usual mode, that it is not in England only that new methods of teaching a thing so indispensable as orthography are gaining ground. The fact is, the orthography of words, or the adaptation of the written characters of a language to the pronunciation, can never be acquired, except by *writing*. It is important, then, that a child should learn to write very early, and that he should learn the orthography of words by actually writing them on a slate or paper. The mode of doing this may be varied in several ways, according to the number of pupils that a person has to teach.

A Prospectus of the 'Ecole Centrale des Arts et Manufactures' was published at Paris in 1830. The time of the year in which it was published may be conjectured from these few words on the cover,—'La manie des places devrait être passée de mode en France: un grand exemple vient d'en montrer l'instabilité. Les jeunes gens savent maintenant qu'il y a quelque chose qui vaut mieux qu'une place, c'est la capacité nécessaire pour se créer une existence indépendante.' The object of this school is to form civil engineers, directeurs d'usines, principals in manufacturing establishments, and teachers of the applications of the sciences. The course comprises three years. For the details, which are very minutely explained, we refer to the small pamphlet itself.

GERMANY.

The intelligence of the death of Niebuhr has been everywhere received with deeper regret than is commonly felt at the death of a distinguished scholar. To trace the history of his life, and the course of his important studies, is an object worthy of the pen of Savigny, who, we are informed, has undertaken to perform this duty to the memory of his friend. We regret that we are unable at present to give more than the following sketch of Niebuhr's life.

B. G. Niebuhr was born, in 1775, at Meldorf, a little town of the district of Dietmarschen, in the duchy of Holstein. His father was the celebrated traveller, Carsten Niebuhr, who had no children except this son and one daughter. From him he received his earliest instruction. (We cannot refrain from quoting the account which Niebuhr himself gives of their instruction in the biography of his father*). 'He instructed both of us,' says he, 'in geography, and related to us many passages of history. He taught me English and French, better, at any rate, than they would have been taught by

* See the Life of Carsten Niebuhr, in the Library of Useful Knowledge, p. 23.

any body else in such a place; and something of mathematics, in which he would have proceeded much farther, had not want of zeal and desire in me unfortunately destroyed all his pleasure in the occupation. One thing, indeed, was characteristic of his whole system of teaching;—as he had no idea how any body could have knowledge of any kind placed before him, and not seize it with the greatest delight and avidity, and hold to it with the steadiest perseverance, he became disinclined to teach whenever we appeared inattentive or reluctant to learn. As the first instructions I received in Latin, before I had the good fortune to become a scholar of the learned and excellent Jäger, were very defective, he helped me, and read with me Cæsar's Commentaries. Here, again, the peculiar bent of his mind showed itself;—he always called my attention much more strongly to the geography than the history. The map of ancient Gaul, by D'Anville, for whom he had the greatest reverence, always lay before us. I was obliged to look out every place as it occurred, and to tell its exact situation. He had taught me to draw maps, and I could not make him a more welcome birthday-present than a sketch of the geography of eastern countries, or translations from voyages and travels, executed as might be expected from a child. He had, originally, no stronger desire than that I might be his successor as a traveller in the East; but the influence of a very tender and anxious mother upon my physical training and constitution thwarted his plan, almost as soon as it was formed. He taught me, by preference, out of English books, and put English works of all sorts into my hands: at a very early age he gave me a regular supply of English newspapers.'

This predilection for England afterwards determined his father to send Niebuhr, for several years, to this country.

He studied the law in the University of Kiel. In 1798 he held a situation in the Royal Library at Copenhagen. Two years afterwards he was called to become an assessor in the department of economy and commerce; and in 1803 he was made one of the directors of the Danish bank.

In 1810 he entered the Prussian state service. He was appointed Professor of History in the new University of Berlin, and Member of the Council of State. It was here, in 1811, that he published his Roman History; a work, which alone, even in its unfinished state, will immortalize his name.

As a public lecturer he came forth with diffidence, yet he openly and strongly avowed his dissatisfaction with many of the arrangements of the new university. Of higher interest, for him, than his lectures, and more analogous to his previous pursuits, were the discussions in the privy council. But even here he was remarkable for the impetuosity with which he always endeavoured to carry his point. In 1816 he went to Rome as minister resident of the Prussian court to the Papal See: here a new and immense field was thrown open to his historical and philological researches. He soon availed himself, to the great advantage of literature, of his access to the Vatican Library, before the appointment of Majo to the post

of librarian, whose discoveries have remained far behind the wide extent of Niebuhr's researches. During the nine years that he held the post of Prussian minister at Rome, his house was open to all distinguished scholars and artists, more particularly to all Prussians, that visited Italy; and he was always ready to give them his assistance or advice, or to interpose his influence on their behalf.

In 1823 he returned to Berlin; but as he could not well agree with the influential men in the government, he retired to the University of Bonn, which had then recently been founded, and of which he soon became one of the brightest ornaments. He delivered public lectures on Roman antiquities, and on ancient and modern history, and thereby contributed materially to the enlivening of this branch of study: but, perhaps, of still greater importance was the private encouragement and assistance of every kind which he gave to many young men who became personally acquainted with him. As one of his greatest merits, we cannot omit here to mention the new edition of the Byzantine Historians, which he set on foot, and which he himself opened by his edition of Agathias.

His sudden death, on the 2d of January, in this year, (occasioned, as his friends say, by continual agitation, on account of the great political events of the period,) has deprived Germany of one of her greatest scholars and best citizens. His loss, at a time so abundant in eventful changes, is irreparable; for even if genius and profound learning might be found to supply his place in the field of literature, when could Germany hope to possess these again, united with that unsullied probity, with that unenvious love for everything great and good, and with that true patriotism, which was the prominent character of Niebuhr?

Göttingen.—The senate of this university have given notice, that the prælections and other studies, which have remained suspended ever since the 8th of January last, will be resumed without fail on the 11th of April next. But this, without interfering with the summer courses of lectures, which will commence between the 23rd and 30th of the same month. The fresh disturbances, which broke out here on the 17th of this month, were entirely confined to the military, and were appeased by the removal of the Minden battalion, which mutinied and insulted the officers. The students and citizens abstained from all interference.—*Göttingen, 28th February.*

Statistics of the Prussian Universities.—During the winter *semester* of 1828 and 1829, the six Prussian universities were attended by 6164 students, comprising the Catholic students of theology and the theological faculty of Munster. Out of this number 4970 were Prussian subjects, and 1194 belonging to other states.

The theological faculty included 3015 students; that of law, 1639; that of medicine, 692; and that of philosophy, 818. The Catholic students of theology amounted to 867.

The Protestant students of theology amounted to 2148. Hence, reckoning the Protestants at 7,406,087, we find there are three

theological students, in each year, for every 10,000 people; and taking the Catholics at 4,651,180, there are two theological students for every 10,000.

The students were distributed among the six universities of the kingdom during the *semester* of 1828, 1829, in the following manner.

Berlin	1752
Bonn	909
Breslau	1129
Greifswald	183
Halle	1330
Kœnigsberg	452
Munster	399

The Prussian monarchy now contains 109 gymnasia, thus distributed: in east and west Prussia, 12; in Brandebourg, 17; in Pomerania, 6; in Silesia, 20; in Posen, 3; in Saxony, 23; in Westphalia, 10; and, the Rhine Provinces, 18.—*Leipziger Litteratur-Zeitung.*

Berlin.—There is now publishing at Berlin a periodical Review, entitled 'Kritischer Wegweiser.' The object of it is to improve geography, mathematical, physical, and hydrographical. The first part of the review contains notices of maps, with remarks on their merits and defects. In the second part we find geographical and hydrographical observations, with many useful results, that have been obtained in various departments of the science.

Ramayana, id est, Carmen epicum de Ramæ rebus gestis Poetæ antiquissimi Valmicis opus. Textum codd. MSS. collatis recensuit, interpretationem Latinam et annotationes criticas adjecit Aug. Guil. a Schlegel. Voluminis primi pars prior. 8vo. Bonnæ ad Rhenum, typis regiis, sumptibus editoris, 1829. pp. 380.—The learned editor, A. W. Schlegel, asserts that under the common name of epic poems the critics usually confound two kinds of composition, which are essentially different; an epic, like that of Virgil, of which the sole object is to delight the reader, and wherein the poet consciously and intentionally departs from historical truth; and an epic, like the Iliad, which preceded the age of regular history, and in some measure supplied its place. He justly deems the latter species of epic the more valuable, and he considers the *Ramayana* as belonging to that more important class; and being animated by an honourable and most generous enthusiasm, he seeks to confer a great benefit upon literature, and to erect a lasting monument to his own fame, by publishing, in a beautiful form, a pure and most correct text. In a preface of seventy-two pages, the illustrious editor has given an account of the *Ramayana*, and of his critical toils in collating twelve MSS., in which he has been greatly assisted by his strenuous and able friend and disciple, Mr. Lassen. The poem contains nearly as many lines as both the Iliad and the Odyssey, but the verses are shorter; it is not our design, however, to speak of this Indian epic at present, or of the merits of its editor and his coadjutor; we notice it only on another account; for a matter most

important to all who study the Eastern tongues, and to those who desire to maintain or to augment the literary reputation of our nation.

The condition of oriental MSS. in England is not satisfactory, or encouraging to the scholar. In the catalogue of Dr. John Leyden's books, which had been purchased for the library at the India House, was a copy of the *Ramayana;* when Mr. Lassen was in London, he was not allowed to collate it, because, as we are informed, the books had not yet been unpacked. A learned foreigner is occupied in a literary work that can be undertaken only once in an age, and is for the benefit of all nations and for all time; he visits England in search of materials to render the result of his labours more perfect, he remains here for weeks, or for months, but he must return without the aid he sought, because the books he desires to consult are not yet unpacked; at the end of his visit, as at the beginning, he finds that the wished-for MSS. '*nondum e cistis exprompti erant, neque in bibliothecam curiæ Indicæ illati!*'

Of the British Museum, Augustus W. Schlegel says, that the Sanscrit MSS. there, with two exceptions, were of little value, and most of them were incorrectly described in the catalogue, '*plerosque in catalogis perperam notatos.*' His adventures at Oxford are so remarkable, that it is proper to relate them in his own words, which accordingly we will translate literally. 'I myself found, moreover,' he says, 'a tattered fragment of the last books of the *Ramayuna* at Oxford, but it is worth while to relate how this happened. I was informed by the celebrated Charles Wilkins, that the Arabic, Persian, and Sanscrit books had been sent thither, which James Fraser collected in the East in the middle of the last century, and enumerates at the end of his life of Nadir Shah; and my learned informant assured me that he had himself seen them at Oxford about twenty years before. I wrote to Alexander Nicholl, a professor at Oxford; his answer was, that he knew nothing of those MSS.; *if they ever were in existence, they had doubtless been lost long ago.*' The learned professor of Oxford certainly speaks of the loss of MSS. quite as a matter of course: '*codices istos ipsi plane ignotos esse; si unquam extiterint, sine dubio dudum deperditos.*' 'I consequently gave up almost all hopes of finding them,' Schlegel continues, 'nevertheless I went to the very famous seat of learning. I was kindly received by the celebrated Alexander Nicholl, whose recent death is a misfortune to Oriental literature; he conducted me to the Bodleian library, of which he then had the care, and showed me a single volume, containing some mythological fables and a medical treatise, and he declared that there were no other Sanscrit MSS. there. Notwithstanding his declaration, I relied upon the distinct and important testimony of Charles Wilkins, and persisted in urging and questioning him for some time, when he at last thought of the Ratcliffe library. He accordingly hunted out his colleague, the librarian of that collection, who well remembered Fraser's Arabic and Persian MSS., but as for the Sanscrit he had totally and entirely forgotten them. We commenced a diligent

search: at last we drew forth from a press, which had long been unvisited, the separate and torn portions of MSS., covered with dust and dirt, and leaves rolled up together promiscuously. Oh! what destruction did I then see! Nothing was ever scattered more confusedly from the Sybil's cave into every quarter of the heavens, when the leaves, on which she used to write her oracles, were carried away by a sudden storm. I was not able to examine them all, for I was in haste to return home, it being late in the autumn, and winter was approaching. I selected, however, from the midst of that disgraceful confusion a fragment of the *Ramayana*, and I put together almost the entire MS. of the poem "*de Crishni ἐπιφανεία* (*Srî Bhâgavata-Purâna*)," and I re-arranged as many of the leaves as I could find in their order. I had already noticed the unusual antiquity of the writing, and I read with no small astonishment these dates at the end of the books, "Samvat, 1461—1463, i. e. A. Chr. 1405-7." The most ancient in the king's library at Paris is a MS. of the same poem, which was written sixty-five years after, "Samvat, 1528, A. Chr. 1472." The University of Oxford, therefore, although still ignorant of its wealth, possesses a MS. which is most rare and indeed unique in Sanscrit literature.'

These are the words of the learned A. W. Schlegel, and we prefer to leave them to our readers without any observation or comment. MSS. of even moderate antiquity are seldom to be found in India, for various reasons, and especially on account of the white ants: so destructive are these insects, that they will devour a considerable library in a few hours. To prevent their fatal ravages it is usual to soak the paper with a liquor, which, as A. W. Schlegel informs us, is impregnated with arsenic, or some other potent and deadly substance. This practice reminds us of, and gives at least some slight tinge of probability to, the well-known eastern story of a physician, or studious prince, who died suddenly from reading a poisoned book. It seems that the sad tale has had at least a due influence upon the professors and librarians at Oxford. Whilst the student, in his eager curiosity, rapidly turned over the close thin leaves with a moistened finger, he often placed it on his lips, and thus unconsciously conveyed the fatal poison to his mouth.

The narrative of the strange disorder of the Ratcliffe library brings to our recollection the animated and amusing picture which the enterprizing Anquetil du Perron has presented of his adventures, when he visited the University of Oxford in search of MSS. in the Zend or ancient Persian language, some years before Schlegel's pilgrimage to 'the very famous seat of learning.'

POLAND.

State of Education of the Kingdom of Poland, as it was last year.—The University of Warsaw, founded by the Emperor Alexander in November, 1816, and substituted for that of Cracow, (the latter city having been separated from the kingdom) consists of five faculties: theology, (of the Roman Catholic faith,) having six

professors; law and administration, having eight professors; physics and mathematics, ten professors; medicine, ten professors; literature and arts, fourteen professors. The rector and the elders of each faculty compose the council of internal administration. The university reckoned 300 students the first year of its foundation, and it counted 750 in 1830. The prizes consist of valuable gold medals. There are also an observatory which has cost 800,000 florins, a botanic garden, containing ten thousand plants, a zoological cabinet, a museum of ancient and modern works of art, medals, minerals, &c., and a public library, containing 150,000 volumes.

Besides the university, there are in Warsaw four lyceums or colleges, having 1613 pupils, a preparatory school, five schools for the Jews, a Roman Catholic seminary, a school for midwives and matrons, a school for the deaf and dumb; also several military schools, such as one of the cadets at Kalisch, that for engineers and artillery, one for ensigns of infantry, and one for sub-lieutenants of cavalry: there is a school for the construction of roads and bridges, one for the forests, one for agriculture, and one for the mines.

There are also eleven palatine schools distributed among the various palatinates or provinces, besides district schools in the country; also elementary schools for children of both sexes, and Sunday-schools for the instruction of mechanics.

In all the kingdom, out of a population of about four millions, there were last year 1756 professors or teachers, 29,750 male students, and 11,157 female pupils.

A committee of public instruction had the superintendence of all these establishments, examined the candidates, books, &c.

There were, in the city of Warsaw, twenty-eight journals, newspapers, and reviews, including daily, weekly, monthly, and quarterly publications. There was also a newspaper published in the chief town of each palatinate.—*Dr. Budecki's Statistical Tables.* Warsaw, 1830.

Note.—The above is from an Italian Journal: what follows is from a different source.

In the exposé presented by the Polish minister of the interior to the Diet of last year, it is mentioned that the *females*, who are intended to take the charge of boarding schools for those of their own sex, receive such instruction as may qualify them for the various grades in those establishments, under the direction of commissioners, specially appointed for that purpose. We observe, on the same authority, that the sum annually assigned for the furtherance of public education, is about two millions of florins, independently of one hundred and sixty thousand bestowed in aid of indigent scholars. The number of students at the university of Warsaw last summer was stated by the minister as being 589; and the whole of the Polish youth, educating in the high schools, as amounting to 8682. He likewise remarked, that, although the elementary schools had experienced a decrease of five and thirty in their number since the year 1823, the scholars had actually increased, and that they might be estimated at an average of 26,000 per annum.

DENMARK.

Mr. Abrahamson communicated to the conductors of the Bulletin des Sciences Géographiques, &c. an account of the progress of mutual instruction in Denmark, from 1823 to the end of 1829, from which the following tabular view is taken.

	On Dec. 31, both Years 1823	1829		On Dec. 31, both Years 1823	1829
	Schools	Schools		Schools	Schools
The army had . . .	19	30	Brought up . . .	164	1023
Copenhagen, the city .	8	29	Aabourg	6	145
——— ——— the province	11	106	Viborg	30	160
Frederichsbourg . . .	9	91	Skanderbourg . . .	8	84
Holbek	6	79	Aarhus	0	56
Soroe	44	78	Randers	16	141
Proesto	6	84	Samso and Veile . .	4	100
The islands Bornholm, Mambo, Als, Æro .	5	103	Ringkjobing . . .	1	195
			Ribe	10	224
Odense	7	130	Duchy of Sleswick . .	0	226
Swandbourg	6	94	Duchy of Holstein . .	0	135
Hjorring	1	79	Duchy of Lauenbourg .	0	1
Thisted	42	112	Iceland, Feroe, and the Colonies . . .	0	24
Carried forward .	164	1023		239	2514
			In preparation for the year 1830, new schools to the number of		300
					2814

RUSSIA.

Primary (National) Schools in Russia.—Advices from St. Petersburgh, of the 19th of February, mention, that 'the Emperor had just given his sanction to certain regulations, which the minister of finance had laid before him, providing for the establishment of primary schools in the several villages appertaining to the crown. The object of these seminaries is to diffuse useful knowledge among the peasantry, and to furnish the villages with individuals who may act as writers. Gratuitous instruction will be afforded in these schools to youths of not less than eight years of age, in catechism, reading books and written documents, writing, and the first four operations of arithmetic. The lessons are to open after their return from labour, and continue until it be resumed: with the exception of Sundays and festivals, they are to occupy four hours per diem. Permission is, however, given to the teacher to assemble his pupils, for the purpose of repeating their lessons, even whilst they are working in the fields; but this cannot take place without the assent of the villagers. The expenses of

these schools are to be defrayed out of the territorial income of the villages; and the first essays are to be made in the governments of St. Petersburgh and Pskov.'

SOUTH AMERICA.

The Greek Professorship in the University of Buenos Ayres is abolished, as not a single pupil has devoted himself to the study of the Greek language since the opening of that University.—*Allgemeine Schulzeitung, Darmstadt.*

UNITED STATES.

PENNSYLVANIA.—The following facts are taken from an article in the *Darmstädter Allgemeine Schulzeitung*, and were communicated by a German teacher resident in Pennsylvania. Some of them, no doubt, will be new even to many Americans, who have had no opportunity of being acquainted with the German population of Pennsylvania:—

'When a schoolmaster's place is vacant, an election is made from among the candidates by the twelve elders of the church and the preacher. The candidates are examined on a Sunday in the church, and required to give specimens of their skill in singing, and playing on some musical instrument. At the close of the service the preacher and elders, after a few minutes' deliberation, choose one from among the candidates, who is appointed for one year; the engagement can be terminated on either side by giving a quarter's notice before the end of the year. A piece of land is assigned to the schoolmaster, and some are found kind enough to give him a little corn to plant it with. He also gets money at the rate of a dollar per month for each pupil, but this only during the months when the children actually frequent the school. Before opening his school (which is at Christmas) the poor master goes round to solicit for scholars, but this degrading practice is not attended with much success. Some of the inhabitants, who are far from the school-house, will join among themselves and hire a schoolmaster for a few months for their own use. This master is boarded and fed by the subscribers in turns. The regular schoolmaster finds other rivals also among the perambulating adventurers who are found in all parts of the U.S. Some parents trouble themselves very little about sending their children, or they take them from school, if there is the least cause of complaint against the teacher, and sometimes without any cause at all. Wie kleichscht tu tem Schulmäschter? "How lik'st thou the schoolmaster?" the father or mother asks the child: or, Wie oft hast tu auk'sagt? "How often hast thou read?" If the answer is not satisfactory, the child is usually not sent back. The schoolmaster consequently can never reckon on the number of his pupils. The teacher who gives this information lived in a district which could have furnished one hundred scholars, but from the beginning of December to the end of March he had generally only

twelve or sixteen, and only on one day as many as twenty-one scholars. Most of these were from sixteen to twenty years of age, and yet could not read. With the smaller children the master sometimes receives instructions how to teach them; the following elegant letter of Jacob Löscher may serve as a specimen of their epistolary style:—

'"An Hernn schulmeister ich las euch wiesen das ihr tie kinter die schreibicher aufsagen solt und das allen Tag das sie die Buchstaben Leren duen—und kinter Last aufsagen eins nach dem anderm und last sie nicht alle auf einmal brillen, wie die schwii. Von Mir Jacob Löscher."

'The school education is generally limited to learning to read; very few are taught writing and arithmetic. To explain or understand what is read forms no part of the plan: religious instruction also is not given in the schools. The consequence of all this is a degree of rudeness and ignorance among a large part of the German population which is almost incredible; and though they have the advantage over their European brethren in their houses, clothing, and the general comforts of life, they are far behind them both in their manners and moral cultivation.'

These remarks will apply not only to the German population of Pennsylvania, but also to a large part of the Germans who inhabit Virginia west of the Blue Ridge. Education is not the fashion among them, and at present they find that they can do without it.

Boston.—The governors of Harvard University, near Boston, in the U. S., adopted a few years ago a plan for procuring books for the University Library, which is somewhat different from the mode in which eleven of our libraries in Great Britain are provided with books. A circular was addressed to the friends of education, to authors, and others, requesting them to present a copy of any work they might publish to the Library of Harvard University. The names of all donors are to be registered in a book, which will always be kept open in the library.

There can be no doubt that such an appeal must have been successful. Those who can afford to give a book will be happy to have the opportunity. In England an act of parliament exacts eleven copies of each book that is published; and what is more, several of the libraries which receive them are as little accessible to the public in general as if they were in Siberia.

EGYPT.

An official newspaper, of a folio size, consisting of four pages, is now published at Cairo, by order of Mohammed Ali, Viceroy of Egypt. This gazette is printed both in Turkish and Arabic. It contains the political regulations of the governor, the most remarkable events that take place in Egypt, a list of the vessels that arrive in and leave the Egyptian ports, and generally such intelligence respecting the agriculture and commerce of the country as it is useful to know. The thermometrical and barometrical observa-

tions made at Cairo are regularly recorded in this gazette. As specimens of what it contains, we may give the following samples.—The council of state has abolished the punishment of death in Egypt, except for political offences. For other offences compulsory labour is the punishment, which varies in length according to the nature of the crime. Some numbers of the gazette contain the prices of all the commodities imported into Alexandria. In the forty-sixth number there is a very interesting report on the arsenal of Alexandria.

It is clear from this statement, that Mohammed Ali neither wants capacity to conceive nor energy to execute important measures for the improvement of the country. But the present condition of the people is not favourable to promote his views; and, indeed, his own policy in some departments of government frustrates all the good that might result from his wise regulations in others. Mohammed Ali has the sole monopoly of all European commodities introduced into Egypt; and what remains of the native population is kept in a condition of degrading slavery, deriving no benefit at all from the improved resources of the state.—*Bulletin de Férussac.*

JAMAICA.

Jamaica Itinerating Libraries.—'The plan of itinerating libraries was introduced into East Lothian by Mr. Samuel Brown, Haddington, about thirteen years ago; and it has been attended with a degree of success which is unexampled in the history of reading associations. The East-Lothian libraries commenced with five divisions of fifty volumes; they now consist of upwards of 2000 volumes, which are arranged in divisions of fifty. These divisions are stationed in the towns and villages of the county, and exchanged every second year. The regular removal and supply of new divisions has excited and kept up such a disposition to read, that in several stations frequently there is not a book left in the library. To persons acquainted with the issues from stationary libraries, of thirteen years' standing, of 2000 volumes, or even of a much smaller number, the following statement will appear almost incredible:—The issues of books at Haddington to subscribers have been nearly eight and a half times for every volume per annum. The gratuitous issues at Haddington have been seven and a half times for every volume; at Gifford, Salton, Aberlady, North-Berwick, Belhaven and Spott, they have been seven times every volume; and the issues of the books of the whole establishment, so far as reported, has been five times every volume per annum; or 10,000 issues of the whole. If the whole had been arranged in stationary libraries, there is reason to believe, that the issues, thirteen years after their establishment, would not have amounted to 1000 per annum.

'Mr. Brown having proved the efficiency of the plan at home, and being desirous to prove its suitableness for the colonies, has, with the assistance of the Scottish Missionary Society, the London Tract

Society, and several Jamaica proprietors, sent out four divisions of fifty volumes, to be placed under the superintendence of the Rev. Mr Blyth, Hampden, Rev Mr Chamberlain, Port Maria; Rev. Mr Watson, Lucea, Rev Mr Waddell, Cornwall.'

The above is part of a printed notice of what are called 'itinerating libraries.' The design is good, and no doubt its success has fully equalled the expectations of its zealous promoter. There is added to this notice a list of the book in the Jamaica north-west district. Among them there are, in our opinion, very few calculated to be really useful to the poorer classes of any community; and how the negroes of Jamaica, for whom we presume the books are mainly* intended, can derive benefit from such works as Russel's Tour in Germany or Doddridge on Regeneration, is far above our comprehension.

NEW SOUTH WALES.

SYDNEY.—A college will soon be established at Sydney, New South Wales, for the education of the youth of this distant colonial possession of Great Britain. The following authentic particulars will be interesting:—

Some influential inhabitants of Sydney have sent as agent to this country the Rev Dr Lang, with powers to make such arrangements as may be best adapted for the establishment of the new college. Dr Lang has been favourably received by the heads of the colonial department, who have also issued an order from the colonial office for a loan to be furnished out of the colonial treasury of Sydney in aid of the undertaking.

Dr Lang has engaged four gentlemen to conduct the different departments of education in Sydney College. The classes with which it will open are—1. A class of geometry and experimental philosophy. 2. A class of practical mathematics, embracing writing and arithmetic. 3. A language class, in which the Latin and Greek languages will be taught. 4. A class of English literature or belles lettres. Besides these classes, Dr. Lang proposes to found a theological lectureship, which, however, will not be supported by the college funds. These classes, it is supposed, will be found sufficient for the wants of the colony at the commencement; but in course of time, a class of mental philosophy will be added, comprehending the principles of jurisprudence and political economy. The gentleman who has the direction of the language class has undertaken to make preparation for this important class also. To insure a supply of students well qualified for the college, it is the intention of the professors to establish subsidiary schools in Sydney, from infant schools upwards, to be conducted by competent teachers, either native or emigrants.

The funds granted as a loan to Dr. Lang are not available till his return to the colony, which appears to us to be an injudicious

* It is stated that 'no books of an immoral or irreligious tendency, or such as are calculated to excite any disturbance in the island, shall be sent out.'

arrangement on the part of the authorities at home. The agent will thus be prevented from procuring, during his stay in London, such books and apparatus as are absolutely essential at the opening of a new college.

BRITISH.

Oxford, Jan. 27.—In a convocation held this day, it was agreed to accept the bequest contained in the will of the Rev. Robert Finch, M.A., of Balliol College.

COPY OF THE BEQUEST.

'I give and bequeath all my books, manuscripts, statues, busts, bas-reliefs, bronzes, medals, coins, gems, prints, pictures, and drawings, unto my secretary, Henry Mayer, a native of Leghorn, in Tuscany, for the term of his natural life; and it is my will, and I do direct the said Henry Mayer to make a full and true schedule or inventory of my said books, manuscripts, and other things, so given and bequeathed unto him for his life, as aforesaid, as soon as may be after my decease; and to sign the same and transmit it unto Thomas Webster, Esq., of Queen-street, Cheapside, London, attorney-at-law. And at the decease of the said Henry Mayer, I give and bequeath my said books, manuscripts, statues, busts, and other things, unto the University of Oxford, upon condition that the whole be kept separate from any other collection, and be called and named "Finch's Collection," and be deposited in the Ashmolean Museum, or, if there be not ample space therein, in some other convenient building, where visitors and students may have access thereto. And in order that the aforesaid collection may not be deteriorated by neglect, I give and bequeath from and immediately after the decease of the survivor of them, my said wife Maria Finch, and the said Henry Mayer, unto the warden of New College, the Master of Balliol College, the President of Trinity College, and the Keeper of the Ashmolean Museum, and to their successors in office for ever, all my monies vested in the 3½ per cent. South Sea Stock, the yearly interest of which I enjoin shall be divided into two equal portions, of which one moiety shall be employed in maintaining and preserving the collection, and the other moiety in purchasing useful objects to increase the same.'

The following new endowments have been made in this University during the last few months:

1. A Professorship of the Sanscrit Language and Literature, and two Scholarships (of 50*l.* each) in the same language, with a *reversion* of a sufficient sum to found two more; by the late Joseph Boden, Esq., Colonel in the East India Company's service. Candidates for the professorship must be matriculated members of the University

in some college or hall thereof, and above twenty-five years of age. The right of election is vested in the Chancellor, Masters, and Scholars in Convocation assembled, by whom the selection of a fit person is committed to the Vice-Chancellor, the Regius Professor of Divinity, and the Regius Professor of Hebrew. The professor is required by the regulations of the endowment to deliver, even to *one* student, at least forty-two lectures yearly; and for every omission of a lecture he is to forfeit 10*l.*, and on the omission of one-third of his yearly number to be dismissed from his office. The election of the first professor is fixed for March 15, 1832. In the term immediately succeeding this appointment, regulations for the scholarships will be made.

2. Hebrew Scholarship.—Mr. Pusey, the present Regius Professor of Hebrew, his elder brother, and Dr. Ellerton, Fellow of Magdalen College, have each given 1000*l.* to found three scholarships for the promotion of Hebrew literature, tenable for three years; one scholarship to be filled up yearly after due examination. The scholarships are open to under-graduates and bachelors of any college or hall. A certain residence and attendance on the professor's lectures are the conditions of holding these scholarships.

3. Kennicott Hebrew Scholarships.—Mrs. Kennicott, widow of the celebrated Hebraist, Dr. Kennicott, late Canon of Christ Church, has left her estates in Norfolk to be sold, to found two scholarships, open to all Bachelors of Arts of the first year, of any college or hall in Oxford; to be elected by the Professor of Hebrew and two other examiners to be appointed by the Vice-Chancellor, and to be tenable for four years. No regulations are yet made respecting the conditions of residence, and the time of election.

4. Mathematical Scholarships.—The Chancellor of the University, several of the colleges, and many resident and non-resident members, seeing the want of some encouragement to the study of mathematics at Oxford, have subscribed to found three scholarships of 50*l.* each; one to be vacant yearly; and the candidates required to have passed their examination for the degree, but with no other qualification. The first election will take place in the summer term.

PRIZE SUBJECTS FOR 1831.

Chancellor's Prizes—the first of which is open to under-graduates and all who have not exceeded four years from matriculation; the other two, to those who have exceeded four, but not completed seven years, and have not taken the degree of A.M. or B.C.L.

1. *Latin Verse.*—Numantia.
2. *English Essay.*—On the Use and Abuse of Theory.
3. *Latin Essay.*—Quænam fuerit Oratorum Atticorum apud Populum Auctoritas.

Sir Roger Newdigate's Prize for Under-graduates.

English Verse.—The Suttees.

Dr. Ellerton's Theological Prize of 20 guineas for Bachelors who have not exceeded their twenty-eighth term from matriculation.

English Essay.—The Evidence deduced from Prophecy in Support of the Truth of Christianity.

Feb. 23.—The number of Determining Bachelors for this Lent, that is, from Shrove Tuesday, 1830, to Shrove Tuesday, 1831, is 280.

Cambridge.—*Bachelors' Commencement*, Jan. 22, 1831.

Moderators.—James Challis, M.A., Trin.; James Bowstead, M.A., Corpus.

Examiners.—William Henry Hanson, M.A., Caius; Joshua King, M.A., Queen's.

Wranglers.—Earnshaw, Joh.; Gaskin, Joh.; Budd, Caius; Worlledge, Trin.; Mills, sen., Pemb.; Amphlett, Pet.; Peill, Qu.; Paget, Caius; Whytehead, Joh.; Meller, Trin.; Smith, Sid.; Willan, Joh.; Cheadle, Qu.; Sheppard, Trin.; Rigg, Caius; Bates, Corpus; Oliver, Pet.; Mills, jun., Pemb.; Paton, Trin.; Entwistle, W., Trin.; Blakesley, Trin.; Otter, Chr.; Degex, Jes.; Winter, Corpus; Walker, Chr.; Bacon, Corpus; Hildyard, Clare; Nash, Trin.; Geary, Trin.; *Harrison, Caius; Hoare, Joh.

Senior Optimes.—Delamare, Caius; Dawes, Corpus; Colville, Trin.; Tyrrell, Joh.; Whiston, Trin.; Ross-Lewin, Cath.; Ventris, Qu.; Nicholson, Joh.; *Bonnin, Qu.; Mann, Joh.; Dixon, Corpus; Owston, Qu.; Stanton, Chr.; Bullock, Clare; Swann, Emm.; *Dashwood, Trin.; Favell, Qu.; Hockin, Pemb.; *Thompson, Trin.; Proctor, Chr.; Stoddart, Corpus; Minty, Caius; Klanert, Pet.; Pickwoad, Pet.; Harman, Caius; Rogers, Trin.; Thomson, Jes.

Junior Optimes.—Venables, Emm.; Bainbridge, Cath., and Cockerton, Joh., *æq.*; Whittington, Pemb.; Wallace, Trin.; Gaskell, Corpus; Kennedy, Trin.; Fell, Pet.; Sharples, Emm.; Shadwell, Joh.; Johnstone, Caius; Stacye, Chr.; Fleming, Pemb.; Street, Qu.; Power, Joh.; Blane, Trin.; Jerwood, Joh.; Spedding, Trin.; Vawdrey, Joh.; Walsh, Trin.; Selwyn, Joh.; Evans, Qu.; Foster, Trin.; Chatfield, Trin.; *Morgan, Trin.; Fosbrooke, Trin.; Yellowly, Trin.

* Those gentlemen whose names are preceded by an asterisk (*) have one or more terms to keep previous to being admitted to their degrees, although they passed their examination in the above order of arrangement.

Cambridge, Jan. 15.—*Lent Examinations.*—The following will be the subjects of examination in the last week of the Lent Term, 1832:—1. The Gospel of St. Mark. 2. Paley's Evidences of Christianity. 3. The Third and Fourth Books of Xenophon's Anabasis. 4. The First Book of Virgil's Georgics.

The Seatonian Prize.—The subject of the poem for the present year is, '*David playing the harp before Saul,*' 1st Sam. xvi. 23. The Examiners have given notice, that should any poem appear to them to possess distinguished merit, a premium of 100*l.* will be adjudged.

Classical Tripos, 1831.—*First Class*—Ds. Kennedy, Trin.; Selwyn, Joh.; Blakesley, Trin.; Johnstone, Caius; Walsh, Trin.; Chatfield, Trin.; Hore, Joh. *Second Class*—Ds. Whiston, Trin.; Minty, Caius; Spedding, Trin.; Worlledge, Trin.; Shadwell, Joh.; Whitehead, Joh.; Sheppard, Trin.; Venables, Emm.; Dashwood, Trin.; Harrison, Caius. *Third Class*—Ds. Fell, Pet.; Dawes, Corpus; Evans, Qu.; Vawdrey, Joh.; Swann, Emm.

March 3.—The Rev. Thomas Jarrett, M.A., Fellow of Catherine Hall, was elected Professor of Arabic, in the room of the Rev. S. Lee, B.D., now Regius Professor of Hebrew.

The following appear to be the numbers of the members of the two Universities for the year 1830:—

Oxford.—Members of Convocation, 2510; members on the books, 5259.

Cambridge.—Members of the Senate, 2179; members on the books, 5263.

NATIONAL SCHOOLS.—The nineteenth report of the 'National Society for Promoting the Education of the Poor in the Principles of the Established Church,' presents what is stated to be a complete account of the schools of the Union. 'It appears that 2609 places have schools directly or indirectly connected with the National Society, of which 2595 are daily and Sunday, and 1083 Sunday schools, for children of either sex. Of these, the places which have made returns within the last two years amount to 2571; and it is only necessary to add a proportionate number of children for the extremely small remainder from which no account has been obtained, in order to show the total number of children receiving instruction in schools so connected. By this mode of computation it appears, that there are 123,182 boys and 93,389 girls receiving daily instruction, and 67,101 boys and 62,106 girls taught on Sundays only; making a total of 345,778 children educated in National Schools;' being an increase of 8379 children during the past year. The Society is now instituting inquiries, by means of queries addressed to the incumbent of every parish and chapelry in England and Wales, to ascertain the progress of education and the state of Church of England schools, without reference to union with the National Society. The result of a similar inquiry, made in the early part of 1828, was as follows:—8399 schools, containing 278,689 boys and 271,739 girls; total 550,428 children.

BRITISH AND FOREIGN SCHOOL SOCIETY.—This Society, the object of which is to promote the daily instruction of the children of the poor of every class and sect, in the elementary branches of education, and in moral and religious principles, state, in one of their recent reports, that their exertions in establishing schools abroad have been eminently successful, extending now not only to nearly all the countries of Europe, but to Greece, India, South Africa, and America, both North and South. In almost every county of England, 'schools have been established, by means of which upwards of fifty thousand children are now receiving daily instruction in the Scriptures. The British schools of England, formed in connexion with the parent society, have been the means of affording education to nearly a million of children; and upwards of seven hundred teachers have been trained for the responsible offices of British school-masters or mistresses.' The training of masters and mistresses has always been a main object with the society: for this purpose a model school is maintained in the Borough-road, in which five hundred boys and three hundred girls are constantly in a course of education. The state of the school and the conduct of the children are described as highly gratifying. The method of education is on the Lancasterian system. The Society have also published the following plan, extracted from 'Hall's Plans for improving the Condition of the Poor, for estab-

lishing and supporting a school for elementary instruction; which, as it contains much that may be generally useful, we here republish:

'Let a school-room be built, which may be done at about the following expense: for one measuring 36 feet by 20, with a cottage attached, about 250*l.** including every appurtenance necessary for commencing school, will be required. For one of 40 feet by 20, which will contain 160 children, 275*l.* has been found adequate. If funds cannot be obtained for building, let a suitable room be taken at a moderate rent, which may be procured for from 5*l.* to 10*l.* per annum. Let this place be fitted up with slates, desks, forms, and lessons, which will cost about 25*l.* A teacher will now be necessary, who may be procured from the British and Foreign School Society, and must be paid in the following manner: 25*l.* per annum salary (if a man), and 2*d.* per week from as many children as he can procure; or 20*l* per annum (if a woman), and the pence from the girls; or if a boys' and girls' school should be required in the same place, an unencumbered married couple will be the most eligible, as about 30*l.* per year, with the children's weekly payments from both schools, will be found sufficient for their remuneration.

'It will readily be perceived, that by this plan a Teacher's interest and duty are united, and act reciprocally upon each other; and so excellently has this plan been found to answer, that in *large towns a school might easily be made to support itself.* We will suppose a town, whose population will afford 250 children, to be without the means of raising annual subscriptions. I would suggest that a room be fitted up as before stated, and that the master be allowed, in addition to the elementary branches of education, reading, writing, and arithmetic, to teach geography, geometry, English grammar, and book-keeping, to those children whose parents might choose to embrace the opportunity, one hour after school-time each day, at an extra charge of 2*d.* weekly. About one fourth of the children might be calculated upon, eager to avail themselves of this advantage, and thus a respectable income would be obtained by the teacher, without placing dependence upon annual subscriptions. It would stand something like this:—

	£.	s.	d.
200 children at 2d. per week	1	13	4
50 children at 4d. per week		16	8
	2	10	0

'From this money, the rent of the school-room being secured by the committee, the teacher ought to liquidate all incidental expenses (excepting firing, during the winter), and pay himself; upon this plan a school has been lately opened in Bradford, Wilts, and succeeds beyond expectation.

'On the plan before suggested, schools have recently been established at the following places in Buckinghamshire and its vicinity: Aylesbury, Beaconsfield, Drayton, Chesham, Tring, Preston, Bisset,

* A school of this description, built and fitted up for this sum, may be seen at Chalvey, near Windsor.

Chalfont, Wooburn, Denham, and Chalvey, near Windsor; as also several evening schools for adults, the whole containing upwards of 2500 pupils of both sexes.'

SUNDAY-SCHOOLS.—The last Annual Report of the Sunday-School Union gives the following summary of the returns of Sunday-schools in connexion with the society:—

	Schools.	Teachers.	Scholars.
Four London Auxiliaries	485	6,141	65,485
Great Britain	6600	73,612	739,971
	7085	79,753	805,456

The Report also states 'the great and growing importance of the addition, as far as possible, of daily schools to Sunday schools. In many cases the same rooms would answer both purposes, and the weekly pence of the children would go far to pay the salary of the daily teachers. The attendance of the children would thus be better secured on the Lord's-day—habits of order would be formed—less time would be consumed in elementary instruction—and Sunday-school teachers would be enabled to direct their undivided exertions to promote the scriptural and religious instruction of the children.' For this latter purpose the committee report that they have requested some esteemed ministers to deliver lectures on biblical literature to the Sunday-school teachers, with a view to their improvement in Scriptural knowledge.

The books in general use in Sunday-schools have also, it is stated, been improved. A separate book for each of the three first classes of scholars has been compiled upon a new system of progressive elementary instruction, the peculiarity of which consists in a threefold exercise of reading, spelling, and catechising; and the plan is stated to have given general satisfaction*.

PROTESTANT DISSENTERS' CHARITY SCHOOL.—This Institution was founded in 1717, for educating and clothing eighty boys and forty girls. Twenty supernumerary boys are admitted. The first school was erected in Bartholomew Close; but that building, a short time ago, was totally destroyed by fire. A new building has been erected in Jewin Crescent, containing a school-room for boys below, and an upper room for girls. The rest consists of suitable apartments for the master and mistress.

SCHOOL AT DEVONPORT FOR ORPHANS OF SOLDIERS AND SAILORS.—A meeting was held in the Townhall, Devonport, on the 24th

* A correspondent, in reference to a quotation in page 17 of this Journal, No. 1, says, 'Sunday-schools have never professed to [illegible] the education of the lower classes of England. Their [illegible] give religious instruction, and as a means of forwarding that object, they have given elementary [illegible] look forward with anxious desire to the period But the teachers of Sunday-[illegible] the elements of knowledge will enable them to de- when the general diffusion, which they spend with the children in the imparting vote the whole of the [illegible]sively.' religious information excl

January last, at which it was resolved to establish a school for the instruction of the orphans and children of soldiers and sailors in that neighbourhood, of whom it was stated there were not less than six hundred destitute of the means of acquiring instruction. This object it is proposed to accomplish by a subscription of 4*s.* per annum, each subscriber having the privilege of nominating a child.

KILDARE STREET SOCIETY.—The annual general meeting of the 'Society for Promoting the Education of the Poor in Ireland,' was held on the 2d of February, at the school-house in Kildare Place, Dublin, at which a very voluminous report was read. It contained strictures on the report of the select committee of the House of Commons; and stated that though the Society had been compelled to refuse seventy-six applications for aid in consequence of their limited funds, yet 100 new schools had been added during the past year, making a total of 1631. Since the commencement of the Institution, 132,530 children had been educated by the Society, a large proportion of whom were Roman Catholics. The report also states the issue of books, since the Repository opened, to be 1,406,990; and that there are 1037 lending libraries, the number of volumes applicable to this department being 100,747. The annual expense for each pupil in the model school is 2*s.* 5*d.*; for model teachers, 9*l.* 5*s.*

GAELIC SCHOOLS.—The Aberdeen Chronicle of January 29 gives the following instance of the efforts occasionally made in the middle or lower classes to secure instruction for those connected with them. 'We understand that the treasurer of the Society for the Support of Gaelic Circulating Schools in the Highlands and Islands of Scotland has lately received, in aid of the funds of that highly useful society, from Serjeant Major Campbell, of the 78th Highlanders, the sum of 10*l.* 12*s.* 8*d.*, being the amount of a collection made among the non-commissioned officers and privates of the service companies of that regiment, now stationed at Kandy, island of Ceylon. This is the second collection from the same regiment, within these two years, the former having amounted to 17*l.* 17*s.* 7*d.*'

BRISTOL COLLEGE.—On Monday, January 17, the Bristol College, situated in Park Row, was formally opened, on which occasion the members of the council and other gentlemen assembled, and the officers of the institution were introduced to the pupils, thirty-four in number. Dr. Carrick, the Chairman, addressed the company, and the pupils in particular, in an eloquent speech, detailing the advantages of education, and recommending to them attention and exertion at present, as the means of securing their advancement in life, and future happiness. In the evening a public dinner was given, at which Dr. Carrick presided.

On Thursday, February 24, the first annual general meeting of the subscribers to the Bristol College was held in the premises

appropriated to the purposes of the institution, at which the report of the council for the past year was read. After congratulating the subscribers on the success of their efforts, and trusting that at no distant day a more capacious building would be required than the one they now occupied; they added, that the council, unwilling to forego, 'for the sake of any new experiment, however plausible, the solid and sure advantages which were to be obtained from the results of long experience, had resolved to found their new course of instruction upon the system of education, improved as it had been from time to time, which was followed in the two universities of this country.' The appointment of Dr. J. H. Jerrard to the office of Principal is then noticed, as also the effective co-operation and superintendence of the Rev. W. D. Conybeare. The total number of students whose names were already entered on the College register, amounted to forty-two, and many more were shortly expected. The report also stated that the receipts, it was confidently believed, would very soon support the annual expenditure, so that what might remain unpaid on the shares, would be available to the erection of a more spacious building when circumstances required. Two hundred and thirty-five shares, it was stated, had been taken, upon two hundred and ten of which the instalment of 5*l.* per share had been paid.

The following appointments have been already made in this Institution:—

Visiter and Superintendent of College Examinations, Rev. W. D. Conybeare, A.M., F.R.S., F.G.S., &c. &c.; Principal and General Superintendent of the College, J. H. Jerrard, D.C.L., Fellow and Classical Lecturer of Caius College, Cambridge; Vice-Principal and Professor of Mathematics, Charles Smith, B.A., of St. John's College, Cambridge.

City of London Literary and Scientific Institution.—On the 2d of March a general half-yearly meeting of the members of the City of London Literary and Scientific Institution was held at the Theatre, in Aldersgate Street. The report stated that the Institution was prospering, and that the classes for the study of languages, as well as their library, their lectures, and their reading-room, were all increasing in attraction. The reduction of the stamp-duty on newspapers and advertisements was also alluded to, as being calculated to promote the diffusion of knowledge, by lowering the price of books, in which the expense of advertising forms a considerable item.

Bristol Philosophical Institution.—The eighth annual general meeting of the Bristol Philosophical and Literary Institution was held on the 10th February. The report stated the prosperity of the Institution, detailed the various acquisitions which their museum and collections of art had received, and enumerated the different lectures that had been delivered during the past year. The report concluded

by ascribing the present gratifying state of the Society not merely to the zeal and liberality of its members, or to the public interest excited by its lectures, but to the increased taste for intellectual pursuits, together with the concord which united the various committees in a zealous co-operation for the attainment of the important ends for which they were associated.

MECHANICS' AND APPRENTICES' LIBRARY.—At Liverpool there is an establishment called the Liverpool Mechanics' and Apprentices' Library. On February 14th the seventh annual report, drawn up by D. Gladstone, Esq., chairman of the committee, was read by him. The report gave a rapid retrospect of the formation and history of the Institution; and stated that the library, from very slender foundations, fostered and augmented by donations, together with the purchases made with the funds supplied by contributions of the subscribers, had arrived to a degree of magnitude claiming a prominent place among those institutions of which Liverpool might be justly proud. The catalogue lately printed exhibits a collection of three thousand five hundred volumes, containing a mass of instructive and entertaining knowledge which would not disgrace libraries of much higher pretensions. The total number of readers is stated to be from nine hundred to one thousand, and the deliveries of books out of the library during the past year, to amount to twenty thousand. The report also remarks that 'works of biography, voyages and travels, and general history, particularly such as illustrate the state of the world in modern times, and more especially of Europe, are amongst those most prized by the generality of readers; also such treatises as those published by the Society for the Diffusion of Knowledge, particularly in the department of entertaining knowledge.'

EDGBASTON SOCIETY.—The Edgbaston (Warwickshire) Society for Mutual Instruction and Assistance was established at the beginning of the year 1815—a time when a very numerous class was in a state of the most abject degradation both morally and physically; when the great and general distress following the war made application for parish assistance so much a matter of course, that few ever thought of their loss of independence in becoming regular paupers. Another circumstance which, to persons of an advanced age, created much mental debasement and positive unhappiness, was their vast inferiority to the rising generation, who were generally educated at Sunday or weekly schools. The leading object of the first promoter was not merely to educate, but likewise to afford the labouring class an opportunity of regaining their self-respect and social feeling by conferring, at the same time that they received, a benefit. Agricultural labourers and farmers' servants were accordingly invited to meet for two hours every Sunday evening, and were taught to read and write. The more proficient were required to assist the ignorant; and it was stipulated that each individual should pay

one penny a week into a general fund appropriated to such cases as might arise among themselves of sickness and distress. Those who met together very soon amounted to thirty, which is rather under the present average number. During the first seven years teachers were constantly employed, but this practice is no longer requisite, and they have latterly depended on each other for improvement. Men of all ages are admitted: father and sons are frequently seen together; and the funds of the society have oftentimes relieved the families and assuaged the sufferings of hard-working members, whom sickness, the infirmities of age, or the severity of the times have reduced from comparative independence to a state of wretchedness and want. At an annual meeting the necessary rules are made and a committee chosen to regulate the affairs and manage the finances of the society. The amount of the receipts has hitherto proved more than amply sufficient for its original purpose; and at the expiration of fourteen years, after distributing among the members more than half the accumulated surplus, after supporting their own distressed, and extending their bounty even to strangers, enough remained to furnish them with books, and to answer every demand they might reasonably anticipate.

SOCIETY FOR THE RELIEF OF GOVERNESSES.—On Monday, Jan. 5, a numerous and respectable meeting was held at Edinburgh for the purpose of establishing a Society for the Relief of Governesses and Female Teachers in sickness or in advanced age. The Rev. Dr. Inglis, in addressing the meeting, dwelt on the great importance of the class of persons whose respectability would be thus increased by holding out inducements for properly qualified persons to devote themselves to the purpose of instruction, and remarked, that society could scarcely expect that due care would be taken of the young, if those to whom their education was committed should be abandoned in the hour of sickness, or when too far advanced in life to perform their accustomed duties. A committee was appointed and measures taken to carry the purposes of the meeting into effect.

POPULAR LECTURES.

A very remarkable circumstance in the present diffusion of knowledge is the general establishment of Mechanics' Institutes, Literary Societies, and courses of popular lectures. In the *Metropolis* these have become so numerous as to defy enumeration; but the following notices may serve to give some idea of the extent to which the system is carried in the provincial towns.

At the second anniversary meeting of the *Newport Pagnel* Mechanics' Institute, held on Jan. 12, the Report stated, that

'Your committee have the pleasure to report that, during the last year, seventeen lectures have been delivered to the members, exclusive of those by Mr. Buckingham, on the manners and customs, &c., of the inhabitants of Palestine. The first lecture was given by Mr. Daniel, on popular anatomy; the second, on hydrau-

lics, by the Rev. T. P. Bull; three lectures, delivered in February by Mr. Hemming, on chemical affinities and the chemical properties of the atmosphere; these were followed by Mr. Christie, who delivered three lectures on astronomy; two lectures were delivered, in October last, by Mr. Josiah Bull, on geology; three lectures, by Mr. Sampson, on electricity, galvanism, and pneumatics; and one, by your secretary, on the manners, customs, and history of the ancient inhabitants of Great Britain.'

At *Manchester*, since the 1st of January last, lectures have been delivered by Dr. Warwick on chemistry; by Mr. Nicholson on the steam-engine; by Mr. Thelwall on Elocution; by Mr. Buckingham on India; by Dr. Carpenter on the powers of the mind, with an especial view to education and self-culture; and by Mr. Giles on astronomy.

At *Chelmsford*, Mr. Neale has given lectures on geology, and many fossils collected from the adjacent parishes were exhibited.

At *Newark*, Mr. Potchett, a schoolmaster of Sneuton, has given a series of lectures on astronomy, the whole of the mechanical apparatus, as well as the geometrical figures, used in illustration, being of his own construction. Mr. Potchett having, in the course of his lectures, expressed a hope to witness the establishment of a Mechanic's Institute, a schoolmaster in the town immediately offered the use of a room, and a small society was formed, the first meeting taking place on New Year's Day.

At *Leeds*, Mr. Addams has lectured on music and acoustics; Mr. Keir on geology and astronomy; and Mr. Lockwood on the steam-engine.

At the *Hull* Literary and Philosophical Society, a paper was recently read by Dr. Longstaff on medical education, in which he stated that 'the great progress of improvement among the lower ranks rendered it necessary that the intelligence and information of the higher classes should keep pace with it, and this was most particularly applicable to the medical profession.' He then proceeded to give an outline of what he considered as necessary to the education of a medical professor, and earnestly recommended the establishment of local schools of medicine in all the large towns, with a medical library and museum attached. The experiment, he said, had already been tried with success at Leeds, Birmingham, Manchester, Bristol, and other populous places.

The preceding list of popular lectures in the provinces might easily be very greatly extended, but we have selected sufficient to show the growing importance of this system of general instruction, especially as applied to adults. Subjects that have hitherto been thought too abstruse or too uninteresting to form any part of the knowledge of the tradesman and mechanic, are now explained in a manner intelligible and attractive to all.

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END OF VOL. I.

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